

# NCEH/ATSDR News Clips for Friday, August 07, 2015

The News Clips are for internal use only and may not be shared outside the agency, or posted on Web sites, without permission of the news companies from which they were taken.

To view recently distributed ATSDR news releases, please visit the news release archives at <http://www.atsdr.cdc.gov/news/index.asp>. NCEH news releases are available through the NCEH Press Room: <http://www.cdc.gov/nceh/pressroom/pressroom.htm>.

The 'News Clips' presented here are intended to provide staff of the NCEH/ATSDR with noteworthy media coverage related to NCEH/ATSDR's work. The articles selected may include mention of NCEH or ATSDR, staff quotes, or topics that are of scientific or environmental interest. The content is taken directly from online news media sources and is presented as published. The clips do not necessarily reflect the views of management or staff at NCEH/ATSDR and may contain inaccuracies.

## Summary

---

### 1. Veteran's claim denied again by VA ATSDR Named WKMG News -- 8/7/2015 Orlando, FL

Veteran still denied after death, despite presumptive service connection announcement ...The VA said it was meeting on August 19th to discuss the presumptive service connection with the Agency for Toxic Substances and Disease Registry, so it is not yet a done deal.

### 2. Environmental Toxins and Your Brain OpEd ATSDR CDC Reference Great Falls Tribune -- 8/6/2015 Montana

We are all exposed to toxins everyday, some of us more than others. In the Center for Disease Control's Fourth National Report on Human Exposure to Environmental Chemicals many of these toxins were found in the majority of individuals tested.

### 3. Why Was The Environmental Protection Agency Messing With A Mine Above Silverton? KUNC News -- 8/7/2015 Greeley, CO

"I think that they were doing a reasonable job, maybe there were some other steps that could have been taken, that could have prevented it. But I think it was a big surprise for almost everybody," ... "I think it highlights the issues of water quality related to mines. And that getting a lot more publicity, a lot more people are going to be interested in doing stuff about mines."

### 4. How marijuana is making California drought worse Christian Science Monitor -- 8/6/2015 Boston MA

Environmental studies find that marijuana, now the top cash crop in California, is taking a heavy toll on some of the state's most sensitive ecosystems, especially in a drought.

**5. Health survey underway at Guantánamo's Camp Justice**  
**Miami Herald, The -- 8/6/2015 Miami, FL**

...health investigation after a Naval Reserves officer filed a complaint July 14 citing seven instances of civilians and service members who contracted a variety of cancers and had spent time at Camp Justice. One of the seven, Lt. Cmdr. William Kuebler, had suffered cancer of the appendix and died days after the officer filed the complaint.

**6. Report: cause for 'alarm' on possible work-related causes of breast cancer**  
**Center For Public Integrity -- 8/6/2015 Washington DC**

A new review of the science concludes workers exposed to solvents and other toxic substances may be at increased risk of the disease

**7. Thirteen years and counting: anatomy of an EPA civil rights investigation**  
**Center For Public Integrity -- 8/7/2015 Washington DC**

A complaint filed against the New Mexico Environment Department in 2002 remains open, to the exasperation of the complainant

**8. Byproduct of fracking spilled in North Dakota**  
**UPI.com -- 8/7/2015 Washington, DC**

The North Dakota Department of Health reported more than 4,000 barrels of a product associated with hydraulic fracturing spilled near the Canadian border.

**9. SC Supreme Court clears way for residents' lawsuit against AVX**  
**Sun News, The -- 8/5/2015 Myrtle Beach, SC**

...overturns lower court's dismissal of Myrtle Beach property owners' lawsuit ...Landowners contend pollution from plant hurt nearby property values ...Justices said case raises questions about "stigma damages"

**10. People are developing dementia earlier and dying of it more, a study shows**  
**Washington Post -- 8/6/2015 Washington, DC**

People are developing dementia a decade before they were 20 years ago, perhaps because of environmental factors such as pollution and the stepped-up use of insecticides, a wide-ranging international study has found.

**11. EPA Dumps One Million Gallons of Wastewater Into Colorado River**  
**Associated Press (AP) -- 8/7/2015 New York, NY**

EPA bureaucrats were using heavy machinery to nose around the Gold King Mine near Durango, Colorado, when they triggered the release of wastewater containing heavy metals like zinc, iron, and copper.

**12. Emotional Support Animals 'Growing Problem' on U.S. Flights**  
**WMAQ News -- 7/27/2015 Chicago, IL**

There's an increasing likelihood that your next seatmate could be a dog -- or a cat -- or a turtle -- or a chicken or a pig or even a kangaroo -- and there's really not much you can do about it.

**13. Thousands of Ebola survivors face severe pain, possible blindness**  
**Reuters -- 8/7/2015 New York, NY**

Ebola survivors who fought off the most severe bouts of infection are the most likely to suffer ongoing medical problems, ... and their health is becoming "an emergency within an emergency".

**14. It's almost impossible to stop Google and Facebook from knowing about your health-related searches**  
**Yahoo! News -- 8/3/2015 Sunnyvale, CA**

a new study conducted by Tim Libert at the Annenberg School for Communication that found "91% of health-related pages relay the URL to third parties, often unbeknownst to the user, and in 70% of the cases, the URL contains sensitive information such as 'HIV' or 'cancer' which is sufficient to tip off these third parties that you have been searching for information related to a specific disease."

**15. Nanoparticles used to breach mucus barrier in lungs**  
**ScienceDaily -- 8/3/2015 Rockville, MD**

Proof-of-concept study conducted in mice a key step toward better treatments for lung diseases

**16. Some radiation okay for expectant mother and fetus, study suggests**

**ScienceDaily -- 8/6/2015 Rockville, MD**

Study finds doses are well below thresholds considered risky ...imaging studies necessary to diagnose traumatic injuries sustained by pregnant women are safe when used properly.

**17. Single dose Ebola vaccine is safe, effective in monkeys against outbreak strain**  
**ScienceDaily -- 8/6/2015 Rockville, MD**

VSV-EBOV appears to trigger innate, adaptive immunity

**18. Researchers discover how the immune system can create cancerous DNA mutations when fighting off infection**  
**Medical Xpress -- 8/7/2015 PhysOrg.com**

Chronic inflammation caused by disease or exposure to dangerous chemicals has long been linked to cancer, but exactly how this process takes place has remained unclear. ...a precise mechanism by which chronic inflammation can lead to cancer has been uncovered...

**19. Ancient mammoth remains found in Switzerland**  
**PhysOrg.com -- 8/7/2015 Internet**

"It's a very exciting discovery, because the last mammoth find (in the canton of Zug) was 50 years ago," said Renata Huber of the canton's heritage and archaeological department.

**20. Japan Heads for Nuclear Unknown With Reactor Restart**  
**Bloomberg -- 8/6/2015 New York City, NY**

Japan is about to do something that's never been done before: Restart a fleet of mothballed nuclear reactors. ...One lesson learned elsewhere is that the process rarely goes smoothly. Of 14 reactors that resumed operations after being offline for at least four years, all had emergency shutdowns and technical failures,...

**21. Fukushima Baby Milk Formula Declared Unfit by China**  
**HuntingtonNews.net -- 8/5/2015 Huntington WV**

Chinese authorities seized more than 881 pounds of baby milk formula that had been imported from Japan because it had been produced in areas known to be heavily contaminated with radioactive material...

**22. Plan to contact isolated tribe in Peru stokes controversy**

**ScienceInsider -- 8/7/2015 AAAS, Washington, DC**

In the wake of increasingly frequent sightings and two fatalities, the Peruvian government announced last month that it would attempt to help and potentially contact an isolated indigenous tribe that lives deep in the Amazon. But some fear the plan could further jeopardize the group, and on 3 August, the government backtracked on the implications of its announcement, insisting that it would not make the first move toward contact, though it will respond to communication initiated by the tribe.

**23. EPA foes turned asthma study into , August 6, 2015**

**E&E Publishing, LLC -- 8/6/2015 Washington, D.C.**

When a Johns Hopkins University researcher published a study showing race and income as risk factors for asthma, she started getting phone calls from industry groups opposing U.S. EPA's bid to tighten the national ozone standard. ...her newfound fans wanted to use her work to show EPA's ozone proposal wouldn't yield public health benefits.

**24. Ailing Vets Sue, Say Toxic Burn Pits Cost Them Their Health**

**Santa Fe New Mexican, The -- 7/27/2015 NM**

"They saw me go from being such a big, strong soldier to just a crumpled down man dying of cancer." ...Tijerina, 61, of Santa Fe, says he feels "kind of let down because the military and the VA really haven't been there to acknowledge that this has happened to thousands of troops."

**25. Halliburton subsidiary KBR suing veterans for legal bills of case KBR lost**

**Daily Kos -- 7/27/2015 Internet**

After developing health problems consistent with hexavalent chromium exposure, the veterans sued KBR for negligence in Federal Court in Portland. After a month long trial, the jury awarded the veterans \$85 Million in 2012. KBR appealed, and sought \$30 Million in legal fees and damages from the veterans for initiating the lawsuit.

---

[Top](#)

**1. Veteran's claim denied again by VA ATSDR Named**

**WKMG News -- 8/7/2015 Orlando, FL**

Veteran's claim denied again by VA ATSDR Named

Veteran still denied after death, despite presumptive service connection announcement

Tara Evans, Aug 07 2015 WKMG News

Three days after the U.S. Department of Veterans Affairs announced several Camp Lejeune-related illnesses will be considered for a presumptive service connection, a local veteran who died from kidney cancer was denied by the VA again for the third time.

Tonight, Donald Burpee's wife said she is devastated after getting another denial letter she didn't expect to get, after finding out the VA said kidney cancer was one of the diseases they're discussing as a presumptive service connection.

Being classified as a presumptive service connection means as long as veterans meet eligibility requirements, they are approved for benefits.

Burpee and her husband fought the VA for months after he was diagnosed with kidney cancer they said was caused by the toxic drinking water at Camp Lejeune.

Local 6 helped get him a hearing before a judge back in May, and Donald Burpee was awaiting the judge's final ruling on his appeal when he died in July.

In the ruling, the VA heavily on the opinion of Dr. Deborah Heaney. She's what the VA calls a subject matter expert.

Heaney stated Burpee's cancer is more likely because of other factors, like obesity and smoking, than his exposure to toxic chemicals.

But three days ago, the VA made the presumptive service connection announcement saying, in part: "The diseases that are currently being reviewed for potential presumptive service connection include kidney cancer, angiosarcoma of the liver, and acute myelogenous leukemia, which are known to be related to long-term exposure to the chemicals that were in the water at Lejeune from the 1950s through 1987."

Burpee said it doesn't make any sense.

"I am so hurt that the denial was again given for my husband, Don, but it is typical with the VA and their system," said Burpee. "With all the issues with the Camp Lejeune water contamination being at the forefront, and my husband's case bringing out how the VA continually denies these cases for the Marines, to have this denial by a judge again is like a stab in the back. They poisoned these Marines and yet they want the blame to be anywhere but on the VA and the Marine Corps. I'm just heartbroken."

Camp Lejeune veterans advocate Mike Partain said there is information missing from the denial. He said a March 2015 Institute of Medicine report that was commissioned by the VA indicates veterans with kidney cancer who were on base should be given the benefit of the doubt. But that report isn't mentioned in Burpee's denial at all.

"It makes no sense whatsoever," said Partain. "It's an insult to the veterans in our country and someone needs to be held accountable."

The VA said it was meeting on August 19th to discuss the presumptive service connection with the Agency for Toxic Substances and Disease Registry, so it is not yet a done deal.

The granting of presumptive service connection for certain conditions can still happen, and Burpee is hoping then -- Don's case will finally be approved.

Local 6 has emailed the VA for answers on Donald Burpee's denial, but so far, has not heard back.

[back](#) / [top](#)

## **2. Environmental Toxins and Your Brain OpEd ATSDR CDC Reference Great Falls Tribune -- 8/6/2015 Montana**

Environmental Toxins and Your Brain OpEd ATSDR CDC Reference  
Deborah L. Oleynik August 6

The numbers are staggering. The symptoms are scary. The reality is devastating. Cognitive decline and, worse yet, Alzheimer's disease are increasing in our society at an alarming rate. As with most health conditions you can have some control over your risk of being afflicted by these diseases. Awareness of the problem and knowledge of prevention measures is key.

The 6th leading cause of death in the U.S. is Alzheimer's disease (AD). One in three seniors will die with it or another type of dementia. Treatment for it does not come cheap. It will cost the country an estimated \$226 billion in 2015 and is projected to cost \$1.1 trillion by 2050. Incidence of AD is expected to increase 3-fold over the next 40 years.

The Alzheimer's Association promotes 10 ways to love your brain including exercise; be social; challenge your brain with formal education; quit smoking; avoid brain injury; eat right; decrease risk factors for cardiovascular disease and stroke; get good sleep; and address mood disorders. This is probably not news to most of you and I encourage you to continue your efforts to accomplish these goals.

Environmental toxins are of additional concern and should not be overlooked. Research is ongoing with regard to chemical toxicity and the brain. Conclusive data is sparse but some things we do know. There are over 200 industrial chemicals that are known to be neurotoxic in humans. Many more are known to be toxic to animals but haven't been well studied in humans. A few examples of neurotoxins that we come across on a regular basis may be surprising. Acrylamide is ingested from eating French fries and potato chips and can also be found in cosmetics. Dibutyl phthalate is used to soften plastics and can be found in raincoats, flooring, garden hoses, plastic bags, shampoos and other personal care products. The pesticides DDT and 2,4-D are on the list. Polybrominated diphenyl ethers (PBDE) are used as flame-retardants in many household materials. Better known neurotoxins are PCBs, nicotine and the heavy metals aluminum, arsenic, lead, and methylmercury.

We are all exposed to toxins everyday, some of us more than others. In the Center for Disease Control's Fourth National Report on Human Exposure to Environmental Chemicals many of these toxins were found in the majority of individuals tested.

We each have different capacities to process these toxins as they circulate in the body. Some can handle more than others due to the individuality of genetics. Once the system reaches its total body burden, symptoms start to arise and genetic variations can be activated. This increases the risk for problems everywhere in the body including in the brain. These genetic alterations are called SNPs – single nucleotide polymorphisms.

In late-onset AD the most well known SNP is ApoE4. The brain injury that occurs in AD is due to the build up of beta-amyloid proteins. When ApoE4 is present, the normal breakdown of these proteins does not occur as effectively for some people. Not all people with this SNP will get Alzheimer's.

The presence of environmental toxins can increase a person's risk of disease, with or without a SNP present. In the case of ApoE4, if high levels of DDT, and its breakdown product DDE, are also present in the blood, there is an increased risk of Alzheimer's disease. This current research emphasizes the need for more in-depth analysis of how chemicals interact in the body and how to better control what we are exposed to.

Even without the presence of ApoE4 cognitive decline can occur as a result of environmental toxins and from diseases where inflammation is common. Lead, methyl mercury, pesticides, PCBs, aluminum and particulate air pollution are all implicated in brain disease. Diabetes, obesity, metabolic syndrome and poor sleep quality can all increase the risk of dementia.

I encourage you to eat organic. This includes all animal products, like butter, in which chemicals like DDT and PCBs build up in fatty tissue. Be aware of chemicals that lurk in your home and buy products that are non-toxic. A good resource for learning more about these chemicals is the Environmental Working Group. Their website, EWG.org, contains a wealth of resources and information on environmental chemicals and their affect on your health.

Deborah L. Oleynik, ND is a naturopathic doctor.

[back](#) / [top](#)

### **3. Why Was The Environmental Protection Agency Messing With A Mine Above Silverton?**

**KUNC News -- 8/7/2015 Greeley, CO**

Why Was The Environmental Protection Agency Messing With A Mine Above Silverton?  
By Stephanie Paige Ogburn KUNC

The Environmental Protection Agency has said it caused a large release of hazardous water from a mine above the town of Silverton, in Southwest Colorado. Which begs the question: What was the EPA doing with heavy equipment at a mine in the San Juan Mountains?



To understand that, you have to understand the history of mining in Colorado and the West.

The Animas River turned orange with mine waste after a spill of a million gallons from a mine above Silverton.

For most of the West's history, miners were basically allowed to run willy-nilly across the landscape, burrowing for gold, silver, or other valuable minerals. According to Ronald Cohen, an environmental engineer at the Colorado School of Mines, whenever you dig into a mountain, "at some point you are going to hit water."

That water, when it runs through the rocks in a mine, hits a mineral called pyrite, or iron sulfide. It reacts with air and pyrite to form sulfuric acid and dissolved iron. That acid then continues through the mine, dissolving other heavy metals, like copper and lead. Eventually, you end up with water that's got high levels of a lot of undesirable materials in it.

Which brings us back to the historic miners, putting holes in mountains across Colorado. For years, miners were not required to do anything with this water. In fact, most of them would dump it right into a creek, or put it in ponds with their tailings, where it became even more acidic.

"In the old days there was very little control and not much attention paid to control [of acidic water from mines]," said Cohen.

Fast forward to 2015, and the state of Colorado is dotted with abandoned mines -- 22,000, according to the state's Division of Mining, Reclamation and Safety -- filling up with water that runs into its streams. And the mines outside of Silverton? They're some of the worst. Here's what a 2014 Durango Herald article had to say about the area above Silverton, which includes Gold King, the mine that released its toxic holdings August 5:

"Scientists say it's the largest untreated mine drainage in the state, and problematic concentrations of zinc, copper, cadmium, iron, lead, manganese and aluminum are choking off the Upper Animas River's ecosystem."

Enter The Environmental Protection Agency

For years, the EPA has wanted to name areas around Silverton as a Superfund site. This brings funding for cleanups. The town, in turn, has resisted, fearing the label would be toxic to tourism. (pun intended.)

Recently, the town and the agency came to a sort of detente. The EPA wouldn't list the site as Superfund, also called the National Priority List, as long as efforts were made to improve water quality near the mines. The EPA agreed to pay for those efforts, which recently got underway.

Somewhat ironically, the Gold King mine was not the object of the cleanup. The agency had planned to plug a mine [pdf] just below it, the Red and Bonita Mine, with the goal of reducing

acid runoff from that mine.

Since mines are interconnected, however, and a plug in one can lead to more water flowing out the other, the agency planned to “remove the blockage and reconstruct the portal at the Gold King Mine in order to best observe possible changes in discharge caused by the installation of Red and Bonita Mine bulkhead.”

That project began July 2015. The Gold King Mine released its toxic load at 10:30 a.m. August 4, 2015.

Peter Butler, who serves as a co-coordinator of the Animas River Stakeholders Group, a roundtable, said the EPA knew there was water sitting at the mine.

“It was known that there was a pool of water back in the mine, and EPA had a plan to remove that water and treat it, you know, slowly. But things didn’t go quite the way they planned and there was a lot more water in there then they thought, and it just kind of burst out of the mine.”

Butler offered cautious support for the EPA’s work at the mine, in light of the spill.

“I think that they were doing a reasonable job, maybe there were some other steps that could have been taken, that could have prevented it. But I think it was a big surprise for almost everybody,” said Butler.

Even without agency mistakes, mines do experience blowouts from time to time -- although generally not on so large a scale, said Butler.

When asked if this would curb the appetite for additional mine cleanups, Butler said he thought it would have the opposite effect.

“I think it highlights the issues of water quality related to mines. And that getting a lot more publicity, a lot more people are going to be interested in doing stuff about mines.”

[back](#) / [top](#)

#### **4. How marijuana is making California drought worse Christian Science Monitor -- 8/6/2015 Boston MA**

How marijuana is making California drought worse

Environmental studies find that marijuana, now the top cash crop in California, is taking a heavy toll on some of the state's most sensitive ecosystems, especially in a drought.

Pete Spotts, Staff writer August 6

California's most valuable cash crop, marijuana, is taking a heavy toll on some of the state's most sensitive ecosystems, with the effects ranging from erosion, contamination, threats to wildlife, and heavy water use at a time of severe drought.

The situation is prompting ecologists and wildlife managers to urge greater focus on bringing marijuana plots under tighter environmental scrutiny.

It's a tall order, notes a research team calling for the added focus via an article in the August issue of the journal *BioScience*. Among the challenges: Money to beef up enforcement and to cover cleanup is scarce. And where some level of regulation exists, enforcement can be stymied by a disconnect between federal and state laws regarding the possession, sale, and use of marijuana.

The environmental concerns are not limited to California, notes the team, led by Jennifer Carah, an ecologist with The Nature Conservancy's office in San Francisco. Twenty-three states and at least three countries are testing the marijuana-liberalization waters to varying degrees.

Where environmental concerns have been raised, they often have centered on energy and water consumption, or carbon footprints for commercial-scale, indoor pot farms. The situation in northern California highlights the need to pay attention to the broader environmental effects of widespread cultivation as well, the team holds.

People have been concerned about the environmental effects of large growing sites for marijuana for years, Ms. Carah acknowledges. But over the last decade, and particularly within the past five years, these concerns have increased significantly, paralleling an increase in marijuana cultivation and California's worsening drought.

By some estimates, the Golden State produces 60 to 70 percent of the marijuana consumed in the United States. Estimates of the crop's value range from \$11 billion to nearly \$17 billion a year. California's next most-valuable commodity: milk and cheese, at \$6.9 billion.

The epicenter for this activity falls within a tricounty area in northwestern California known as the Emerald Triangle. Well over 10,000 growing sites dot the region. The area also is home to two biodiversity jewels: Northern California Coastal Forests Terrestrial Ecoregion and the Pacific Mid-Coastal Freshwater Ecoregion.

Using satellite images, Scott Bauer has been analyzing cultivation activity in four study areas within the Emerald Triangle since 2009.

"In our study of watersheds, from 2009 to 2012 marijuana cultivation increased by 55 to 104 percent," says Mr. Bauer, a senior environmental scientist with California's Department of Fish and Wildlife, who gathers evidence of environmental crimes associated with marijuana cultivation.

So far this summer, he has visited 40 growing sites. "Every one of those is either new or bigger," he says, indicating that activity is still increasing.

"People call it the green rush," Carah adds. "The kinds of damage we see now are really similar to the kinds of damage associated with unregulated timber harvesting in the early to mid 1900s."

Bulldozed dirt roads connect patches of forest or oak woodlands that have been clear-cut to make way for marijuana plants – with the erosion that attends both changes to the landscape. Silt fouls streams and, in some cases, blocks them. The growing areas and the web-like networks of roads that connect them fragment habitats. Pesticides, herbicides, fertilizer, even diesel fuel contaminate some of the soil and water in areas where pot grows or grew.

A study published in 2014 revealed that 80 percent of dead Pacific fishers – weasel-like animals that live in the forests – found in northern California and the southern Sierra Nevada had been exposed to poisons typically used to kill wood rats in black-market marijuana fields.

When seen in satellite photos, individual growing areas in the Emerald Triangle, which embraces Humboldt, Trinity, and Mendocino counties, seem small. But they often are concentrated along mountain slopes whose streams are part of larger watersheds. These watersheds feed rivers and creeks that are home to salmon and trout species on state and federal "threatened" lists, as well as to other fresh-water creatures identified as "species of special concern."

Indeed, the impact of unregulated pot growing on water availability and quality is a key concern, says Bauer, a coauthor on the BioScience commentary. The growing season runs from June to October, when rain generally is scarce. During this time, surface water in streams and wetlands are the easiest sources of water to tap. Marijuana plants grown outdoors require twice the water during the growing season than do wine grapes, the Emerald Triangle's other major draw on irrigation water.

That's why the impact of unregulated pot growing on water availability and quality is such a key concern, Bauer says. Remote plantations, which include greenhouses, tend to draw water from fragile wetlands, in some cases draining them. They also could drain streams during the June-to-October growing season, when rain is scarce.

In an analysis Bauer and colleagues from the Department of Fish and Wildlife published in March in the journal PLOS One, the team reported that water needed to supply marijuana plantations at the height of the growing season exceeded the flow rate of streams the plantations used in three of the four watersheds the team studied.

As if to underscore the problem, a visit Wednesday to a growing site in northern Humboldt County, host to several thousand plants, revealed that streams flowing freely this past spring had been drained dry, Bauer says.

"The one place where they were diverting water, they were taking all of it," he says. "Basically they were taking the last of the water on the mountain."

Regulating marijuana plantations in ways designed to reducing environmental damage is complicated, notes Anne Short Gianotti, an assistant professor at Boston University whose research focuses on environmental governance.

One of the biggest impediments, she says, is the semi-legal nature of the activity – legal to varying extents in some states but a violation of federal law.

Some growers want to comply with existing regulations or take part in voluntary efforts, she continues. But many are reluctant to do so. Once they apply for permits to build roads or divert water, they put themselves on the regulatory map. This opens them to visits not only from state regulators with whom they are trying to cooperate but also from federal agents, who could use information from state permits to track them down.

Moreover, the line between marijuana grown for legal purposes at the state level and marijuana grown for the black market is less like a sharp boundary and more like a smudge, researchers have noted.

A voluntary certification program exists to support environmentally responsible marijuana cultivation, known as Clean Green Certified. But little demand exists for marijuana carrying that label.

"There isn't as much economic incentive to participate in this program as there is in organics," says Dr. Short Gianotti, another coauthor on the BioSciences commentary.

Last year, California Gov. Jerry Brown (D) earmarked \$3.3 million to pay for regulation and enforcement of environmental laws related to growing marijuana, notes The Nature Conservancy's Carah. This year, several bills have been introduced in the state legislature that deal with the issue.

But more is needed, she says. A comprehensive effort to tighten regulations, beef up enforcement, and in particular to restore damaged landscapes would cost an estimated \$120 million per year over the next five years.

"Three million dollars a year is a step in the right direction," she says. "But we still have a long way to go."

[back](#) / [top](#)

## **5. Health survey underway at Guantánamo's Camp Justice** **Miami Herald, The -- 8/6/2015 Miami, FL**

Health survey underway at Guantánamo's Camp Justice  
August 6, 2015 Carol Rosenberg

An industrial hygiene team is carrying out "a comprehensive occupational and environmental health survey" at the war crimes court compound at the U.S. Navy base at Guantánamo Bay, Cuba, following concerns there may be carcinogens at the site, a base spokeswoman said Thursday.

The Industrial Hygiene team from the Navy and Marine Corps Public Health Center arrived on Tuesday to conduct the survey of Camp Justice with no known departure date, said Kelly Wirfel,

public affairs officer on the base. She disclosed that the experts were also doing a review of historical records “of all available environmental data and a medical records check” on the same day the base commander, Capt. David Culpepper, held a town meeting for military and civilians “who work, live or have spent time” near the court.

Camp Justice, with a \$12 million maximum-security court, trailer park, offices and tent city is built atop the obsolete McCalla air field.

The Pentagon Inspector General’s office asked Culpepper to oversee the health investigation after a Naval Reserves officer filed a complaint July 14 citing seven instances of civilians and service members who contracted a variety of cancers and had spent time at Camp Justice. One of the seven, Lt. Cmdr. William Kuebler, had suffered cancer of the appendix and died days after the officer filed the complaint.

The Miami Herald has independently been looking into the incidence of cancer by people who spent time Camp Justice and found a small sample of a dozen people who suffered a wide range of cancers in recent years — including brain, colon and appendix cancer and instances of a tumor in one service member’s stomach and on the leg of another. In at least two of the cases, the patients were believed to have had cancer before staying at Camp Justice.

A Guantánamo fact sheet says those conducting the review include “epidemiologists, human health risk assessors, occupational and environmental physicians, environmental health specialists, industrial hygienists and other health experts who review medical and historical records, and available testing and sampling data to determine if there are any potential impacts or health risks associated with potential exposure to environmental hazards.”

[back](#) / [top](#)

## **6. Report: cause for 'alarm' on possible work-related causes of breast cancer**

**Center For Public Integrity -- 8/6/2015 Washington DC**

Report: cause for 'alarm' on possible work-related causes of breast cancer

A new review of the science concludes workers exposed to solvents and other toxic substances may be at increased risk of the disease

By Jim Morris August 6

A new summary of the science makes a strong case for occupational links to breast cancer and calls on Congress, regulators and researchers to pay more attention to chemical exposures and other risk factors.

“Working Women and Breast Cancer: The State of the Evidence,” is the product of more than two years of work overseen by the San Francisco-based Breast Cancer Fund. A panel of experts reviewed scientific studies, most published in the past 25 years, and found ties between the disease and exposures to solvents; pesticides; tobacco smoke; ionizing radiation and other toxic materials. There also was an association with night shift work.

“Research is inadequate, but there is enough to raise alarm about women’s work, occupational exposures and breast cancer,” the report concludes. “At the same time, policies are insufficient to protect worker health.”

The report touches on a subject raised by the Center for Public Integrity’s “Unequal Risk” project, launched in June. The series noted that enforceable workplace exposure limits for many toxic substances don’t exist, and those that have been set by the Department of Labor’s Occupational Safety and Health Administration in most cases aren’t protective. As the Breast Cancer Fund put it, “women and men in the workplace are routinely exposed to levels of chemicals that would not be allowed in their homes. The relatively lax requirements of some occupational settings lead to both higher levels and longer exposure periods than would otherwise occur in a residential or commercial setting.”

Among the report’s recommendations:

Women should be included in occupational studies. They have “historically been excluded...which means that health issues that predominantly affect women, including breast cancer, have been at best understudied and at worst ignored.”

Congress should pass legislation “to change the paradigm on how chemicals in the workplace are managed,” empowering OSHA to make employers use safer alternatives when possible or to “incentivize innovation” when not.

OSHA “should take full advantage of its current authority” by setting stricter exposure limits. The agency tends to allow exposures that can cause one additional case of cancer for every 1,000 workers; the Environmental Protection Agency, in contrast, seeks to hold cancer risks to 1 in 100,000 or 1 in 1 million when it regulates exposures to the general public.

In 2012, the Center published a story about high rates of breast cancer among female workers in Canada’s automotive plastics industry. The story reported the results of a six-year study that found the women were almost five times as likely to develop the disease, prior to menopause, as women in a control group.

The workers had been exposed to a variety of solvents, heavy metals, flame retardants and the hardening agent bisphenol A, used in polycarbonate water bottles and other products. “A lot of these chemicals should be removed from the workplace,” breast cancer survivor Sandy Knight, who worked at two Ontario plastics plants from 1978 to 1998, told the Center.

[back](#) / [top](#)

## **7. Thirteen years and counting: anatomy of an EPA civil rights investigation Center For Public Integrity -- 8/7/2015 Washington DC**

Thirteen years and counting: anatomy of an EPA civil rights investigation

A complaint filed against the New Mexico Environment Department in 2002 remains open, to the exasperation of the complainant  
By Talia Buford

SANTA FE, New Mexico — On June 26, 2014, Deborah Reade got a certified letter from the Environmental Protection Agency that was nearly a decade in the making.

“During the course of the EPA’s investigation,” the letter read, “it was determined that additional information is needed to clarify this allegation.”

Reade was incredulous.

Her original complaint to the EPA’s Office of Civil Rights, in 2002, seemed like a lifetime ago. Back then, she was research director for a group called Citizens for Alternatives to Radioactive Dumping. She’d alerted the agency to a potential pattern of discrimination against Spanish-speaking residents by the New Mexico Environment Department.

Her complaint focused on Triassic Park, a proposed commercial hazardous-waste disposal site, and a public participation process she said made it hard for poor and Spanish-speaking residents to voice concerns. The project was permitted by the state in 2002. Three years later, the EPA agreed to investigate Reade’s claims.

Then: silence, for nine years. Reade moved on, disillusioned with the process. Now, the EPA was pulling her back in.

“When I got this [2014 letter], I kind of groaned, ‘Really?’ ” Reade said during an interview in her Santa Fe home. “I was like, ‘Oh no. I don’t even remember how to do any of this,’ you know?”

By all accounts, Reade should have been free of the matter years ago.

EPA regulations dictate the timeline the Office of Civil Rights must follow when investigating complaints of discrimination allegedly committed by recipients of EPA funding. Within five days of delivery, the EPA must acknowledge receipt of the complaint and within 20 days decide if an investigation will occur. The investigation itself should take no more than 180 days, barring special circumstances.

The office’s director, Velveta Golightly-Howell, declined to comment on the Triassic Park investigation. She said, however, that “cases do age. That is just the nature of civil rights programs.”

A Center for Public Integrity review of 265 complaints filed from 1996 to 2013 shows that the EPA has failed to adhere to its own timelines: On average, the office took 350 days to decide whether to accept a complaint and allowed cases to stretch 624 days from start to finish. A consultant’s report, which examined cases from 1993 to 2010, found that the agency accepted or rejected just 6 percent within the allotted time period. Half took a year or more to be adjudicated.



Reade's case — and the nearly decade-long investigation — is an extreme, but not unique, example of the agency missing its mark.

The EPA's online docket, last updated in March, lists 17 cases accepted for investigation that are still awaiting disposition. The earliest was filed in 1994, the most recent in 2013.

In July, Citizens for Alternatives to Radioactive Dumping and four other groups signed on to a lawsuit asking a court to force the EPA to act on their civil rights cases, some of which have been pending since 1994. The lawsuit, filed by the environmental law firm Earthjustice, calls the delays "unlawful" and "unreasonable," and asks that the EPA be compelled to issue preliminary findings in the cases and impose remedies when warranted.

Environmental justice advocates say such delays send a message to state regulators and residents that complaints are not important and make it hard for EPA to reconstruct events many years after the fact. People are left to set their own standards about what discrimination looks like.

"They don't care that this inequality is rampant and that's the message," Reade said. "You're powerless."

A 'good, safe spot'

Triassic Park exists only on paper.

The hazardous waste facility, first permitted by the state in 2002 and now up for renewal, was never built. If it had been, it would be located on 480 barren acres nearly indistinguishable from any stretch along U.S. Highway 380 in southeastern New Mexico.

Pass a few cows grazing along the roadside and you'll eventually find mile marker 196, 36 miles from Tatum and 43 miles from Roswell. The ground in this area is pockmarked with grass, tall weeds and errant debris — a beer can here, a broken comb there — likely thrown from the window of a passing car. Walking stick cactuses dot the landscape and tumbleweeds skip across the road. A small mesa rises in the distance, but for the most part, this part of Chaves County is flat and desolate, with only the occasional rumble of a semi-truck to break the silence.

"We were trying to find the sorriest piece of ground we could," said Larry Gandy, whose father, Dale, conceived of the project along with a family of local ranchers, the Marleys. "It turned out they had a spot that grazes few cows, and it is a spot that actually sits below the water table. So we found a good safe spot with nothing we could contaminate, and that's how we come to that site."

The plan was to turn the site into a landfill that could accept up to 10,000 cubic yards of industrial waste each month. The company, Gandy Marley Inc., would be required to monitor the site for contamination for 30 years in exchange for taking in dangerous substances such as lead, mercury, benzene and PCBs, as well as soil from remediation sites and other debris. The original plan also included two evaporation ponds and four tanks that, combined, could hold upwards of

5 million gallons of waste.

In Chaves County — ground zero for UFO devotees and home to 2009 Kentucky Derby champion Mine that Bird — there are about 11 people for every square mile. Southeastern New Mexico is known as “Little Texas” to some — thanks to similar terrain and economies — and the “nuclear corridor” to others, a nod to a uranium enrichment plant and the U.S. Department of Energy’s Waste Isolation Pilot Plant, which stores radioactive waste.

Most county residents identified as Hispanic according to recent Census Bureau estimates. More than a third speak a language other than English at home and 21 percent of people live below the poverty level.

“From an environmental point of view, you have to understand the racism of putting [these facilities] in an area where people can’t defend themselves,” said Noel Marquez, an activist and artist in Artesia.

The early 1990s brought changes in EPA rules that left many clients of the Gandys’ oil field services company scrambling to figure out how to properly dispose of their hazardous waste. They applied for an NMED permit for Triassic Park in 1993, but the public review process didn’t begin until 2001.

Over those eight years, opposition began to percolate.

Victor Blair and Deborah Petrone had read Roswell Daily Record articles about Triassic Park. Petrone owned a postage-stamp-size plot of land about seven miles away, and the two began researching the facility, traveling to the Roswell Public Library to examine the permit. It was hundreds of pages long; Blair was astonished at the scale of the project.

“They were permitted to take scores of tons of each of these different chemicals,” Blair said. “And so it was just like, ‘Oh, man.’ That’s when we made the decision to fight.”

They connected with other activists who earlier had raised objections. Blair called Jaime Chavez, then an environmental justice organizer with the Water Information Network in Albuquerque.

Chavez explained their plight.

“He said, ‘If you two are the only ones involved in the resistance, that’s laughable,’ ” Blair recalled. “‘You’re gonna have to be undercover and raise a stink. That’s all you can do right now. And when the stink raises a profile, it’ll attract other people who don’t like the smell. Then, maybe you can get enough people around you to make some noise.’ ”

Blair became the de facto man-on-the-ground, taking advice from Chavez during regular phone calls.

“You had to mobilize the community,” said Chavez, now an organizer with the Rural Coalition, a farmworker advocacy group. “The plan was to go door to door, getting these commitments,

talking with your neighbor, spreading the word and delivering folks to these hearings, which we did.”

NMED sensed heightened public interest in the project and insisted that Gandy Marley hold public meetings, said Steve Pullen, who helped draft the permit for Triassic Park and is now compliance manager for NMED’s Hazardous Waste Bureau. Meetings were set for Roswell, Santa Fe, Tatum and Hagerman.

On July 19, 2001, Deacon Jesus Herrera of the Immaculate Conception Roman Catholic Church in Dexter walked into the Hagerman Elementary School auditorium with 15 or 20 other people from his parish. They’d come to him with concerns about Triassic Park. This, Herrera said, was supposed to be their meeting — a chance to ask questions and get responses in Spanish.

Things didn’t go as planned.

As the meeting progressed in English, Herrera rose and asked if the presentation also would be made in Spanish.

It wouldn’t, he was told. An interpreter was on hand but would only translate attendees’ questions into English. Some activists remember officials telling Herrera to “sit down and shut up.” The activists said they were incensed and embarrassed.

To Herrera, a clear message was sent to the Spanish-speaking members of the crowd: “What we say is not important.”

Most of the 150 or so residents began to walk out, forming a steady stream from the auditorium into the hallway. Organizers said they had submitted at least 20 requests for multilingual notices and language services to NMED during the permitting process.

Pullen said he thought Herrera had a “pretty good point” about the presentation. But, since the meeting was voluntary, he wasn’t sure it was his place to insist the entire proceedings be translated.

“I can only suggest,” Pullen said, “and perhaps I should have.”

State law does not require that permit applicants hold public meetings, though residents can request a public hearing through the NMED secretary to voice their concerns.

The meeting served as the basis for the civil rights complaint Deborah Reade filed with the EPA on September 12, 2002. The 27-page complaint alleged that the NMED had discriminated against Spanish-speaking residents during the Triassic Park permitting process.

Beyond the translation issues with the Hagerman meeting, the complaint pointed to the absence of Spanish versions of the permit, a fact sheet and several meeting notices. It alleged that the proposed facility would subject Hispanic residents to disproportionate levels of pollution.

The EPA didn't accept the complaint until 2005. Reade prodded the agency in a letter dated November 20, 2007, submitting fresh allegations of public comments missing from the hearing record.

"We are writing to you to amend our original complaint because of new information that we received several months ago," she wrote. "Unfortunately, we don't actually expect that you will act on this amendment because of EPA's history of ignoring virtually all complaints that are not dismissed outright."

### Digging up the past

Overcoming her hesitancy, Deborah Reade eventually responded to the EPA's 2014 request for more information.

She enlisted the help of her friend, Petrone, who had since moved to Ohio, to interview residents. Petrone, who was finishing up her Ph.D. in education, agreed to tape some of the interviews.

The pair drove 3 ½ hours down U.S. Highway 285 from Santa Fe to Dexter to interview anyone who remembered anything about Triassic Park. They went through boxes of documents long stored in attics seeking information that might be helpful for the EPA's investigation. Reade was heartened by what they found.

"People had not forgotten," she said. "They were still discouraged because they felt they had no power and no chance to make a difference. Now I understood the enormous hurdles people had gone through to come to that Hagerman meeting — to make it all the way to testify, the few of them that did. And I went back actually energized from that experience."

Some things have changed since 2001.

At the NMED, institutional knowledge about Triassic Park is dwindling. Most of the managers involved in the permitting process have left the agency, said Pullen, who has been there 23 years. The NMED is still digitizing the six boxes of documents associated with the permit, he said, and many have been archived.

"It's going to be a challenge after 15 years to recall all of the circumstances during that Triassic Park permitting process," Pullen said.

Nonetheless, he said, the controversy all those years ago changed the way the agency does business.

"It wasn't until the Triassic permit process in late 2001 that people were asking for these translation services," Pullen said. "And since then, we have translated every permit hearing that we've been involved in at the Hazardous Waste Bureau."

The agency also posts all of its notices in Spanish and has also translated some notices, and arranged for translators, in the languages of the Navajo and Zuni tribes, who might be concerned

about facilities in the western portion of the state, Pullen said.

Then-Gov. Bill Richardson signed an executive order in 2005 requiring all departments, boards and commissions to make sure that public health and environmental notices are posted in Spanish, English and tribal languages or dialects where appropriate.

“It just became the practical and best way to do business,” Pullen said.

But the state is still far from utopia for low-income and minority communities, said Doug Meiklejohn, executive director of the New Mexico Environmental Law Center. He pointed to the 2013 repeal of a rule that required the lining of oil and gas waste pits as an example.

Environmental injustice “definitely exists in New Mexico,” Meiklejohn said. “It’s an issue because the state laws and state regulations don’t protect politically powerless people.”

Meiklejohn said his office gets about 100 requests for help each year. Most are turned away, he said, because the three lawyers can only add so many cases to their workload.

Larry Gandy said he doesn’t remember much about the initial permitting process for Triassic Park. His father, Dale, had overseen the details of the project, which received a 10-year permit from the NMED in March 2002.

Dale Gandy died on Dec. 30, 2011, less than a month after his 70th birthday and six years after EPA accepted the civil rights complaint for investigation.

“Everything you want to talk about happened many years ago, and the gentleman that dealt with everybody is no longer here,” his son said.

But Gandy Marley hasn’t abandoned Triassic Park.

The company initially tried — unsuccessfully — to position the proposed facility as a destination for waste from Superfund cleanups and, for a time, as a nuclear fuel rod recycling facility through a now-defunct Energy Department program. The clients it hoped to serve found other ways to dispose of their waste, leaving Triassic Park with a permit but no customers.

In 2011, Larry Gandy filed an application to renew the permit, as he is required to do every 10 years. The notice of that re-application was issued in English and in Spanish. The filing reflects a dramatically scaled-back project; it is essentially a placeholder, Gandy said, to keep the permit alive while the company figures out its next steps.

“It is the only permit like this in the state of New Mexico, so we still believe at some point in time, it might still be a viable project,” Gandy said.

Deacon Herrera, who spoke out at the tumultuous Hagerman meeting in 2001, is still a voice for his community. These days, however, he focuses on immigration reform.

He takes his lead from parishioners, he said, and furor over Triassic Park has died down.

“Maybe they lost their faith in that matter,” Herrera said.

By September 2014, Reade had collected two binders of documents, interviews, and written statements about Triassic Park. She sent it to the EPA’s Office of Civil Rights, her hope tempered with realism.

“I don’t really expect anything from them,” she said.

It’s been 312 days. Her case is pending.

[back](#) / [top](#)

## **8. Byproduct of fracking spilled in North Dakota** **UPI.com -- 8/7/2015 Washington, DC**

Byproduct of fracking spilled in North Dakota  
State reports more than 4,000 barrels of produced water spilled.  
By Daniel J. Graeber BISMARCK, N.D., Aug. 7 (UPI)

The North Dakota Department of Health reported more than 4,000 barrels of a product associated with hydraulic fracturing spilled near the Canadian border.

The state said it was notified by Samson Resources of a spill of brine in Divide County, situated in the northwest of North Dakota at the Canadian border. Of the 4,260 barrels spilled, the Department of Health reported 225 barrels were recovered.

No surface waters were impacted.

The brine release is at least the sixth such incident reported this year. In May, Oasis Petroleum reported its fourth release of brine, known also as produced water, in the state.

Energy companies inject brine, or salt water, to improve oil and gas production from shale deposits. The Federal Environmental Protection Agency said brine may contain toxic metals and radioactive substances that can be "very damaging" to the environment and public health if released on the surface.

The State Health Department said its spill responders were on site observing the cleanup operation from the latest incident in Divide County. There was no statement on the incident from Samson.

[back](#) / [top](#)

## **9. SC Supreme Court clears way for residents’ lawsuit against AVX** **Sun News, The -- 8/5/2015 Myrtle Beach, SC**

SC Supreme Court clears way for residents' lawsuit against AVX  
State Supreme Court overturns lower court's dismissal of Myrtle Beach property owners' lawsuit  
Landowners contend pollution from plant hurt nearby property values  
Justices said case raises questions about "stigma damages"  
Charles D. Perry

A group of Myrtle Beach property owners can proceed with a lawsuit against AVX Corp. after the state Supreme Court reversed a lower court's decision to dismiss their case, according to documents filed Wednesday.

Lawyers for the landowners had argued that Circuit Court Judge Benjamin Culbertson improperly dismissed the claims because he refused to hear evidence that the owners' property values have decreased and that bank loans have been denied because of pollution on property that is near their land.

The high court agreed, and the majority of justices said the case "raises the novel question whether South Carolina will recognize 'stigma damages.'"

Wednesday's decision left no doubts about the property owners' next move.

"We get a trial," said Gene Connell, the Surfside Beach lawyer representing the residents. "I was pleased that the court reversed the lower court's decision."

A spokesman for AVX, which moved its world headquarters from Myrtle Beach to Greenville in 2009, could not be reached Wednesday for comment. The company demolished the remnants of the plant earlier this year.

The pollution stems from AVX's use and handling of trichloroethylene, an industrial degreaser that can cause cancer and other health problems. The electronics manufacturer used TCE during the 1970s and 1980s, and its migration through the groundwater in a narrow swath of Myrtle Beach has taken decades.

Court documents and testimony show AVX officials knew in the 1980s that the pollution was moving from its 17th Avenue South property to the adjacent neighborhood, but kept that information hidden from regulators and politicians. The company finally admitted to the pollution in 1995, but told regulators it was limited to the AVX site. Groundwater testing in 2006 showed high levels of TCE had moved through groundwater to the neighborhood.

Last year, AVX agreed to pay \$1.2 million to the owners of 42 properties in Myrtle Beach where groundwater contaminated by TCE was discovered. The agreement provided most landowners with \$10,000-\$15,000 apiece, depending on the size and condition of each property.

In 2011, AVX settled a separate lawsuit with adjacent property owner Horry Land Co., which also claimed its property values had been ruined by the contamination. The terms of that

settlement are confidential, but property records show AVX bought the 21.5-acre Horry Land site for \$4.6 million.

A third contamination lawsuit — filed by a family that wanted to develop a condominium project near the manufacturer — ended in August 2013 when a jury awarded \$750,000 to JDS Development. Both sides later agreed to vacate the judgment in favor of a confidential settlement.

The last remaining issue was whether owners of property outside the contamination area could sue AVX because the stigma from the nearby pollution damaged their property values. Culbertson dismissed the case, leading to the residents' appeal.

During arguments before the state Supreme Court last year, AVX's lawyer insisted that the property owners didn't have a case and should not be allowed to sue the company.

Justices Costa Pleicones, Kaye Hearn and Donald Beatty supported reversing the lower court's decision. John Kittredge and Chief Justice Jean Toal dissented.

In Wednesday's court filing, the majority of justices stated the case poses a novel question.

"Further development of the facts may demonstrate that appellants' property has in fact lost value due to its proximity to the property contaminated by TCE, or that the contamination has been remediated and the alleged stigma ameliorated," the ruling states. "The creation of a factual record will allow us to decide whether to adopt a 'no stigma damages rule;' an 'all stigma damages rule;' or a modified rule."

The cleanup

AVX is paying to clean up the pollution using a process called enhanced reductive dechlorination, in which molasses is injected into the groundwater.

The molasses creates bacteria that eat the TCE, breaking it down into harmless matter.

The pollution is not considered a health hazard because the groundwater is not a drinking water source.

[back](#) / [top](#)

## **10. People are developing dementia earlier and dying of it more, a study shows** **Washington Post -- 8/6/2015 Washington, DC**

People are developing dementia earlier and dying of it more, a study shows  
By Daniela Deane August 6

People are developing dementia a decade before they were 20 years ago, perhaps because of environmental factors such as pollution and the stepped-up use of insecticides, a wide-ranging international study has found.



The study, which compared 21 Western countries between the years 1989 and 2010, found that the disease is now being regularly diagnosed in people in their late 40s and that death rates are soaring.

The study was published in the Surgical Neurology International journal, and its findings publicized in the London Times newspaper Thursday.

The problem was particularly acute in the United States, where neurological deaths in men aged over 75 have nearly tripled and in women risen more than fivefold, the leader of the study, Colin Pritchard from Bournemouth University, told the London Times.

Scientists quoted in the study said a combination of environmental factors such as pollution from aircraft and cars as well as widespread use of pesticides could be the culprit, the newspaper reported.

Early-onset dementia used to cover people developing the disease in their late 60s. Now, it's meant to mean people much younger than that, the research showed.

The study found that deaths caused by neurological disease had risen significantly in adults aged 55 to 74, virtually doubling in the over-75s.

Some 60 percent of the increase in deaths was attributed to dementias. Some 40 percent covered other neurological diseases such as Parkinson's and motor neurone disease, scientists told the London newspaper.

The sharp increase in death rates from dementia-related diseases cannot simply be blamed on an aging population or stepped-up diagnosis, Pritchard said.

"The rate of increase in such a short time suggested a silent or even a hidden epidemic, in which environmental factors must play a major part, not just aging," he was quoted as saying. Pritchard said no single factor was to blame, but instead blamed the interaction between different chemicals and varying types of pollution.

"The environmental changes in the last 20 years have seen increases in the human environment of petro-chemicals — air transport, quadrupling of motor vehicles, insecticides and rises in background electro-magnetic field, and so on," Pritchard was quoted by the newspaper as saying. The scientists said nobody wanted to put an end to modern advances. Instead, to make them safer.

Other experts quoted by the newspaper were skeptical about the causes for the increase.

Tom Denning, professor of dementia research at the University of Nottingham, said that falling death rates for cancer and heart disease could account for the spike in deaths from neurological disease since people "had to die of something."

"We can't conclude that modern life is causing these conditions at a younger age," Dr. Simon

Ridley, head of research at Alzheimer's Research UK told the paper. "We know that Alzheimer's and other dementias can have a complex interplay of risk factors."

Pritchard warned, however, that it was "time for us to wake up and realise that a major problem we now face is unprecedented levels of neurological disease, not just the early dementias."

[back](#) / [top](#)

## **11. EPA Dumps One Million Gallons of Wastewater Into Colorado River Associated Press (AP) -- 8/7/2015 New York, NY**

EPA Dumps One Million Gallons of Wastewater Into Colorado River  
Blake Seitz August 7

The Environmental Protection Agency, the federal agency committed to protecting "human health and the environment," jeopardized both Wednesday by accidentally releasing one million gallons of wastewater into Colorado's Animas River.

EPA bureaucrats were using heavy machinery to nose around the Gold King Mine near Durango, Colorado, when they triggered the release of wastewater containing heavy metals like zinc, iron, and copper.

The Denver Post reported that residents of Durango "gathered along the Animas River to watch as the blue waters turned a thick, radiant orange and yellow just after 8 p.m., nearly 34 hours after the spill started."

"The river looks pretty nasty," Deputy Stephen Lowrance of the San Juan County Sheriff's Office told the Post. "It doesn't look like water; it just looks like sludge."

The EPA was reportedly investigating small leaks of toxic chemicals into the river near the mine when they triggered the million-gallon leak of toxic chemicals into the river.

[back](#) / [top](#)

## **12. Emotional Support Animals 'Growing Problem' on U.S. Flights WMAQ News -- 7/27/2015 Chicago, IL**

Emotional Support Animals 'Growing Problem' on U.S. Flights  
How a dog and a tortoise helped NBC5 Investigates expose an increasing problem in air travel  
By Phil Rogers NBC News Chicago Jul 27, 2015

If you dread the prospect of sitting next to a small child on an airplane, you may want to think again.

There's an increasing likelihood that your next seatmate could be a dog -- or a cat -- or a turtle --

or a chicken or a pig or even a kangaroo – and there's really not much you can do about it.

They're called Emotional Support Animals – ESAs. Almost anybody can bring one, or two, or three -- or even more - on board a plane, and virtually all species (other than snakes) are allowed. All you need is a letter from a licensed mental health professional, saying that you would benefit by having an ESA during plane travel. That allows your animal sit with you for free, and you don't have to pay the \$125 fee that you'd otherwise likely be charged to bring your pet on board.

NBC5 Investigates has learned that some flight attendants are concerned with the growing number of ESAs on flights, to the point that they fear the animals could potentially pose a safety hazard – especially in the event of an emergency evacuation.

[Video interview with flight attendant: <http://www.nbcchicago.com/news/local/Emotional-Support-Animals-Growing-Problem-on-Flights-318728371.html>]

And NBC5 has also found an online cottage industry of websites where doctors are willing to write ESA letters, for a fee. In fact, an NBC5 producer easily obtained her own ESA letter by answering a few questions and paying a fee, which allowed her to take two flights accompanied by her dog Bailey -- plus a Sulcata Tortoise named Xena, on loan from AnimalQuest in north suburban Lake Villa, a company which offers exotic animal exhibitions and educational presentations to local schools and organizations.

“It really is getting to the point where it's become uncomfortable for other passengers,” says Laura Glading, National President of the Association of Professional Flight Attendants. “And flight attendants are getting put in the middle.”

Glading adds: “We've had over fifty documented cases ... dozens of instances where planes have returned to the gate; passengers have unruly pets; dogs maybe snapping at other passengers, or barking at other dogs and causing disruption.”

“A couple of weeks ago I was on a delayed flight because a dog had relieved himself in the bathroom,” she says. “We took a delay so the service people could come on and clean the toilet with their hazmat materials.”

ESAs are not service animals, which provide specific and much-needed assistance to people with physical, emotional, or mental disabilities. Service animals are highly trained and protected by the Americans with Disabilities Act (ADA), which ensures they have full access to accompany their companions anywhere – including planes. It is against federal law to misrepresent an animal as a service animal.

Glading points out that true service animals are consistently well-behaved on airplanes, and provide real help in the event of an evacuation, by assisting their companion as needed.

In contrast, ESAs are regulated by the Air Carrier Access Act – which does not grant them the broad range of access allowed by the ADA. It simply allows them on a plane – provided the

passenger provides has a letter.

Another flight attendant and union representative tells NBC5 that these ESAs could truly jeopardize an emergency evacuation, because they are not trained for an emergency, and could get in the way of passengers – especially as their numbers increase. (She says she sees at least one ESA on nearly every flight she works.)

That same attendant tells NBC5 that her airline discourages attendants and gate staff from challenging the validity of an ESA or an ESA letter, for fear of a lawsuit.

“The same people who ‘game’ the system are also the same people who are most likely to make a scene if you try to challenge them on their animal or animals, so we are strongly encouraged to ‘just deal,’” the attendant says.

She does not want her name used by NBC5 because she does not want to reveal the airline she works for.

A spokeswoman for the airline industry takes issue with the idea that more people are flying these days with ESAs, but at the same time she says the industry does not keep track of the numbers. “We trust our passengers are honest in communicating their need for service assistance animal support,” she said in a statement.

The two flight attendants who spoke to NBC5 say that individual airlines track ESA – and ESA problems – internally.

But NBC5 Investigates has examined the few figures that are on file with the U.S. Department of Transportation, which show that complaints about assistance animals in general have risen steadily over recent years, and nearly nine out of every ten of those complaints now relate to animals traveling with people with “unspecified” disabilities – not any of the variety of disabilities commonly associated with true service animals. Although it cannot be confirmed that these “other” animals are ESAs, it may indicate a trend.

Here’s the breakdown of the assistance animal complaints to U.S. airlines in 2011 – the most recent year these reports have been tracked:

- Animals with vision-impaired passengers – 9 complaints
- Animals with hearing-impaired passengers – 8 complaints
- Animals wheelchair-bound passengers – 9 complaints
- Animals with passengers with other assistive devices – 11 complaints
- Animals with mentally-impaired passengers – 17 complaints
- Animals with passengers with allergies – 1 complaint
- Animals with passengers with “other disabilities” – 411 complaints

And here’s how assistance animal complaints have increased over the most recent eight years of reporting by U.S. airlines. Note that those complaints related to people with “other disabilities” now account for most all the complaints each year:

Year	Service Animal Problems	Related to "other disability"
2004	66	38 (57%)
2005	77	52 (67%)
2006	127	97 (76%)
2007	143	109 (74%)
2008	200	148 (74%)
2009	295	228 (77%)
2010	403	322 (79%)
2011	466	411 (88%)

That's an increase of more than a thousand percent, for problems reported concerning animals who are traveling with people not with sight or hearing problems, or seizures or mental issues, but passengers with "other" disabilities.

The flight attendants who spoke to NBC want a crackdown on the dozens of websites marketing ESA letters. They also would like to see airlines reduce the fee to travel with pets in approved containers, so that more people would be willing to go through the regular process of flying with their pets on planes.

[back](#) / [top](#)

### **13. Thousands of Ebola survivors face severe pain, possible blindness** **Reuters -- 8/7/2015 New York, NY**

Thousands of Ebola survivors face severe pain, possible blindness  
Kate Kelland Aug 7, 2015 Reuters

Thousands of West Africans who were infected with the Ebola virus but survived it are suffering chronic conditions such as serious joint pain and eye inflammation that can lead to blindness, global health experts said on Friday.

Ebola survivors who fought off the most severe bouts of infection are the most likely to suffer ongoing medical problems, World Health Organization experts said, and their health is becoming "an emergency within an emergency".

"The world has never seen such a large number of survivors from an Ebola outbreak," said Anders Nordstrom, a WHO representative in Sierra Leone who took part in a five-day conference this week about Ebola survivors.

"We have 13,000 survivors in the three countries (Guinea, Liberia and Sierra Leone). This is new - both from a medical and from a societal point of view," he told reporters on a telebriefing.

Daniel Bausch of the WHO's clinical care team on Ebola survivors said about half of all those who fought off the virus now report joint pain, with some suffering such severe effects that they can't work.

Eye problems including inflammation, impaired vision and - in severe but rare cases - blindness, have been reported by about 25 percent of survivors, Bausch said.

Less measurable but equally serious long-term problems, such as increasing rates of depression, post traumatic stress disorder and social exclusion, are also affecting survivors.

Since West Africa's devastating Ebola epidemic was by far the largest ever seen - infecting more than 27,000 people and killing almost 11,300 of them - scientists are not able to say whether survivors' chronic health problems are unusual.

The Ebola virus is thought to be able to survive no more than 21 days in most body fluids, such as blood and vomit, which are the primary means of transmission.

But it is also known to be able to lurk in semen and in the soft tissues of the eye for up to several months after recovery.

Scientists believe the vision impairments reported by survivors of the current outbreak are probably linked to the virus persisting in the eyes.

Bausch said sight problems, joint pain and headaches have been reported in a few survivors of previous outbreaks since the disease was first detected in 1976. But past epidemics were much smaller, meaning survivor numbers were too small to study or draw any meaningful scientific conclusions.

Specialists say, however, that it is not surprising that a virus as dangerous as Ebola could have long-term impacts, and the unprecedented outbreak in West Africa offers a unique opportunity to learn more about how to help survivors.

[back](#) / [top](#)

#### **14. It's almost impossible to stop Google and Facebook from knowing about your health-related searches**

**Yahoo! News -- 8/3/2015 Sunnyvale, CA**

It's almost impossible to stop Google and Facebook from knowing about your health-related searches

Brad Reed August 3, 2015

Keeping Google and Facebook from knowing about your health-related Internet searches is not easy. SciLogs directs our attention to a new study conducted by Tim Libert at the Annenberg School for Communication that found "91% of health-related pages relay the URL to third parties, often unbeknownst to the user, and in 70% of the cases, the URL contains sensitive information such as 'HIV' or 'cancer' which is sufficient to tip off these third parties that you have been searching for information related to a specific disease."

In some ways, this isn't too surprising. If you do a Google search for a certain disease, Google will obviously know that you're searching for it. But even just typing a full web address into Chrome's search bar will often let Google know what you're searching for since many of those web addresses also contain the name of the disease that you want to learn more about.

And let's say you don't search through Google and just find a link to health information through privacy-focused search engines like DuckDuckGo — there's still a good chance that Facebook will know you're searching for information on a certain disease. Why? Because websites such as the Center for Disease Control's HIV information page contain "Share" and "Like" buttons for Facebook, which are apparently enough to let Facebook know that you've visited the page even if you never click on them.

Websites such as WebMD, meanwhile, send user information to as many as 34 different domains.

Libert says that government and nonprofit websites need to do a better job of auditing their code to make sure that information on which users are clicking on which health-related pages aren't shared with third parties. Check out a quick video of him describing his rather disturbing findings below.

[back](#) / [top](#)

## **15. Nanoparticles used to breach mucus barrier in lungs** **ScienceDaily -- 8/3/2015 Rockville, MD**

Nanoparticles used to breach mucus barrier in lungs  
Proof-of-concept study conducted in mice a key step toward better treatments for lung diseases  
August 3, 2015 Johns Hopkins Medicine

Nanotechnology could one day provide an inhaled vehicle to deliver targeted therapeutic genes for those suffering from life-threatening lung disorders. Researchers may have discovered first gene delivery system that efficiently penetrates the hard-to-breach human airway mucus barrier of lung tissue.

Researchers at the Johns Hopkins University School of Medicine, Johns Hopkins University Department of Chemical and Biomolecular Engineering, and Federal University of Rio de Janeiro in Brazil have designed a DNA-loaded nanoparticle that can pass through the mucus barrier covering conducting airways of lung tissue -- proving the concept, they say, that therapeutic genes may one day be delivered directly to the lungs to the levels sufficient to treat cystic fibrosis (CF), chronic obstructive pulmonary disease, asthma and other life-threatening lung diseases.

"To our knowledge, this is the first biodegradable gene delivery system that efficiently penetrates the human airway mucus barrier of lung tissue," says study author Jung Soo Suk, Ph.D., a biomedical engineer and faculty member at the Center for Nanomedicine at the Wilmer Eye

Institute at Johns Hopkins. A report on the work appeared in the Proceedings of the National Academy of Sciences on June 29.

The mucus barrier protects foreign materials and bacteria from entering and/or infecting lungs. In healthy lungs, inhaled matter is typically trapped in airway mucus and subsequently swept away from the lungs via beating activities of cilia, or small, hairlike strands, to the stomach to be eventually degraded. Unfortunately, Suk notes, this essential protective mechanism also prevents many inhaled therapeutics, including gene-based medicine, from reaching their target.

His team's experiments with human airway mucus and small animals, Suk adds, were designed as a proof-of-concept study demonstrating that placing corrective or replacement genes or drugs inside a human-made biodegradable nanoparticle "wrapper" that patients inhale could penetrate the mucus barrier and one day be used to treat serious lung disorders. What's more, because a single dose might theoretically last for several months, patients would experience fewer side effects common to drugs that must be taken regularly over long stretches of time.

Suk says their work with nanoparticles grew out of failed efforts to deliver treatments to people with lung diseases. In patients with CF, for instance, they experience a buildup of excess mucus caused by impaired ciliary beating, resulting in an ideal breeding ground for chronic bacterial infection and inflammation. This pathogenic process not only worsens patients' quality of life -- and often puts patients in life-threatening situations -- but it also makes the airway mucus harder to overcome by inhaled therapeutic nanoparticles.

Most of the existing drugs for CF help clear infections but do not solve the disease's underlying problems. A couple of recently approved drugs designed to target the underlying cause of CF require daily treatment for the entire lifetime and can benefit only a subpopulation of patients with specific types of mutations. Yet this study, Suk notes, has demonstrated that delivering normal copies of CF-related genes or corrective genes via the mucus-penetrating DNA-loaded nanoparticles could mediate production of normal, "functional" proteins long term. This could eventually become an effective therapy for the lungs of patients, regardless of the mutation type.

To date, no one has been able to figure out how to efficiently deliver those genes to the lungs, Suk says, noting that experiments using deactivated viruses to carry them have proven inefficient and expensive, and could potentially lead to severe side effects. Moreover, the body could develop resistance to these virus-based delivery systems, rendering the delivery mechanism moot.

Alternatively, numerous nonviral, synthetic systems have been widely tested. However, previous research had shown that most of the nonviral, DNA-loaded nanoparticles possess positive charge that caused them to adhere to negatively charged biological environments, in this case the mucus covering the lung airways. In other words, conventional nanoparticles are too sticky to avoid unwanted off-target interactions during their journey toward the target cells. Further, these particles tend to rapidly aggregate in physiological conditions, rendering them too large to penetrate the mesh of airway mucus.

For its design, the team developed a simple method to densely coat the nanoparticles with a



nonsticky polymer called PEG, neutralized the charge and created a nonsticky exterior. They showed that these nanoparticles retained their sizes at a physiological environment and are capable of rapidly penetrating human airway mucus freshly collected from patients visiting the Johns Hopkins Adult Cystic Fibrosis Program directed by Michael Boyle, a co-author of the paper. The team also made the whole delivery system biodegradable so that it would not build up inside the body.

To test whether the system provides efficient gene transfer to the lungs of animals, the researchers packed them with a gene that makes light-generating proteins once delivered into the target cells. They demonstrated that inhaled delivery of the genes via the mucus-penetrating nanoparticles resulted in widespread production of the protein to levels superior to gold-standard, nonviral platforms, including a clinically tested system. In addition, they showed that the treated lungs lit up for up to four months after a single dosing.

"With one dose, you can get gene expression -- i.e., production of therapeutic proteins -- for several months," Suk says, adding that the nanoparticles did not appear to show any adverse effects, such as increased lung inflammation.

Suk and his team caution that more animal studies are needed to confirm and refine their proof-of-concept study, and that treatment of human disorders with nanowrapped therapies is years away.

Story Source:

The above post is reprinted from materials provided by Johns Hopkins Medicine. Note: Materials may be edited for content and length.

[back](#) / [top](#)

## **16. Some radiation okay for expectant mother and fetus, study suggests ScienceDaily -- 8/6/2015 Rockville, MD**

Some radiation okay for expectant mother and fetus, study suggests  
Study finds doses are well below thresholds considered risky  
August 6, 2015 American Academy of Orthopaedic Surgeons

According to a new study in the Journal of the American Academy of Orthopaedic Surgeons (JAAOS), imaging studies necessary to diagnose traumatic injuries sustained by pregnant women are safe when used properly.

During pregnancy, approximately 5 to 8 percent of women sustain traumatic injuries, including fractures and muscle tears. To help evaluate and manage these injuries, orthopaedic surgeons often recommend radiographs and other imaging studies. "While care should be taken to protect the fetus from exposure, most diagnostic studies are generally safe, and the radiation doses from

these studies are well below thresholds considered risky," says lead study author and orthopaedic surgeon Jonas L. Matzon, MD.

Proper diagnosis and treatment of these injuries is important because traumatic injuries are the leading cause of non-pregnancy-related maternal death. Expectant mothers may be concerned about the impact of radiation exposure on the fetus and may perceive the risk of a diagnostic test as high. This new report shows that "the true risk is low, so these concerns should not prevent pregnant women from having indicated diagnostic imaging studies," says Dr. Matzon.

X-rays and other imaging devices emit two types of radiation: nonionizing radiation which does not carry enough energy to completely remove an electron from an atom or molecule, and ionizing radiation, which can remove one or more electrons from atoms and molecules. At high enough doses, ionizing radiation may cause birth defects or spontaneous abortions and increase the risk of cancer. However, fetal exposure to ionizing radiation depends on many factors, including the body part being imaged, the type of imaging selected, the amount and type of radiation emitted, the mother's bodily build, the distance between the fetus and the area being imaged, and the safety protocols followed.

For example, ultrasound and magnetic resonance imaging (MRI) are not associated with known fetal effects and are considered safe for pregnant patients. In contrast, computed tomography (CT) of the pelvis results in higher doses of radiation to the fetus, and therefore, greater consideration must be taken.

The study also found the following:

X-ray exposure from a single diagnostic procedure does not result in harmful fetal effects.

The likelihood of a harmful effect is proportional to the radiation dose and the gestational age of the embryo or fetus at the time of exposure.

"If a patient requires multiple scans and repeated doses of radiation, a consultation with a qualified medical physicist should be considered to determine estimated fetal dose," says Dr. Matzon.

Story Source:

The above post is reprinted from materials provided by American Academy of Orthopaedic Surgeons. Note: Materials may be edited for content and length.

Journal Reference:

J. L. Matzon, K. F. Lutsky, E. K. Ricci, P. K. Beredjiklian. Considerations in the Radiologic Evaluation of the Pregnant Orthopaedic Patient. *Journal of the American Academy of Orthopaedic Surgeons*, 2015; 23 (8): 485 DOI: 10.5435/JAAOS-D-14-00274

[back](#) / [top](#)

## **17. Single dose Ebola vaccine is safe, effective in monkeys against outbreak strain ScienceDaily -- 8/6/2015 Rockville, MD**

Single dose Ebola vaccine is safe, effective in monkeys against outbreak strain  
VSV-EBOV appears to trigger innate, adaptive immunity  
August 6, 2015 NIH/National Institute of Allergy and Infectious Diseases

National Institutes of Health (NIH) scientists report that a single dose of an experimental Ebola virus (EBOV) vaccine completely protects cynomolgus macaques against the current EBOV outbreak strain, EBOV-Makona, when given at least seven days before exposure, and partially protects them if given three days prior. The live-attenuated vaccine, VSV-EBOV, uses genetically engineered vesicular stomatitis virus (VSV) to carry an EBOV gene that has safely induced protective immunity in macaques. The experimental vaccine is currently undergoing testing in a global clinical trial in humans. VSV, an animal virus that primarily affects cattle, has been successfully tested as an experimental vaccine platform against several viruses.

Prior to this study, scientists had no information about how monkeys vaccinated with VSV-EBOV would respond to a challenge with EBOV-Makona, which has spread throughout West Africa. Previous animal studies demonstrated that VSV-EBOV could successfully protect monkeys against the first EBOV strain recognized, Mayinga, in 1976, and against EBOV-Kikwit, a strain that emerged in Central Africa in 1995. This new study shows that certain immune responses induced by VSV-EBOV are similar against all three viruses. The scientists, from NIH's National Institute of Allergy and Infectious Diseases Division of Intramural Research, concluded from these findings that VSV-EBOV likely would be equally protective against different EBOV strains.

The group also observed that the experimental VSV-EBOV vaccine appears to provide initial protection by triggering innate virus-fighting host responses; these responses partially protected animals challenged with EBOV-Makona within a week after vaccination. Animals vaccinated more than a week before viral challenge developed antibodies, an adaptive immune response, that were shown to be critical for protection.

Story Source:

The above post is reprinted from materials provided by NIH/National Institute of Allergy and Infectious Diseases. Note: Materials may be edited for content and length.

Journal Reference:

A Marzi et al. VSV-EBOV rapidly protects macaques against infection with the 2014/15 Ebola virus outbreak strain. Science, August 2015 DOI: 10.1126/science.aab3920

[back](#) / [top](#)

## **18. Researchers discover how the immune system can create cancerous DNA mutations when fighting off infection**

**Medical Xpress -- 8/7/2015 PhysOrg.com**

Researchers discover how the immune system can create cancerous DNA mutations when fighting off infection

Chronic inflammation caused by disease or exposure to dangerous chemicals has long been linked to cancer, but exactly how this process takes place has remained unclear.

Now, a precise mechanism by which chronic inflammation can lead to cancer has been uncovered by researchers at MIT—a development that could lead to improved targets for preventing future tumors.

In a paper published this week in the Proceedings of the National Academy of Sciences, the researchers unveil how one of a battery of chemical warfare agents used by the immune system to fight off infection can itself create DNA mutations that lead to cancer.

As many as one in five cancers are believed to be caused or promoted by inflammation. These include mesothelioma, a type of lung cancer caused by inflammation following chronic exposure to asbestos, and colon cancer in people with a history of inflammatory bowel disease, says Bogdan Fedeles, a research associate in the Department of Biological Engineering at MIT, and the paper's lead author.

### **Innate immune response**

Inflammation is part of the body's innate response to invading pathogens or potentially harmful irritants. The immune system attacks the invader with a number of reactive molecules designed to neutralize it, including hydrogen peroxide, nitric oxide and hypochlorous acid.

However, these molecules can also cause collateral damage to healthy tissue around the infection site: "The presence of a foreign pathogen activates the immune response, which tries to fight off the bacteria, but in this process it also damages some of the normal cells," Fedeles explains.

Previous work by Peter Dedon, Steven Tannenbaum, Gerald Wogan, and James Fox—all professors of biological engineering at MIT—had identified the presence of a lesion, or site of damage in the structure of DNA, called 5-chlorocytosine (5ClC) in the inflamed tissues of mice infected with the pathogen *Helicobacter hepaticus*. This lesion, a damaged form of the normal DNA base cytosine, is caused by the reactive molecule hypochlorous acid—the main ingredient in household bleach—which is generated by the immune system.

Researchers have uncovered a way chronic inflammation can lead to cancer. Panel 1 shows a normal DNA base pair of cytosine (C) and guanine (G). In panel 2, inflammation, represented by

a red background, damages the base pair. A chlorine atom (Cl) is added to the cytosine, resulting in a cytosine lesion called 5-chlorocytosine. In panel 3, the cytosine lesion is now able to base pair with adenine (A). In panel 4, the adenine directs incorporation of an opposing thymine (T) at the position of the initial (C). Thus, the formation of 5-chlorocytosine in DNA drives the formation of C:G-to-T:A mutations. Credit: Jose-Luis Olivares/MIT

The lesion, 5ClC, was present in remarkably high levels within the tissue, says John Essigmann, the William R. (1956) and Betsy P. Leitch Professor in Residence Professor of Chemistry, Toxicology and Biological Engineering at MIT, who led the current research.

"They found the lesions were very persistent in DNA, meaning we don't have a repair system to take them out," Essigmann says. "In our field lesions that are persistent, if they are also mutagenic, are the kind of lesions that would initiate cancer," he adds.

DNA sequencing of a developing gastrointestinal tumor revealed two types of mutation: cytosine (C) bases changing to thymine (T) bases, and adenine (A) bases changing to guanine (G) bases. Since 5ClC had not yet been studied as a potentially carcinogenic mutagen, the researchers decided to investigate the lesion further, in a bid to uncover if it is indeed mutagenic.

Using a technique previously developed in Essigmann's laboratory, the researchers first placed the 5ClC lesion at a specific site within the genome of a bacterial virus. They then replicated the virus within the cell.

The researchers found that, rather than always pairing with a guanine base as a cytosine would, the 5ClC instead paired with an adenine base around 5 percent of the time—a medically relevant mutation frequency, according to Essigmann.

### Damaged DNA

The findings suggest that the immune system, when triggered by infection, fires hypochlorous acid at the site, damaging cytosines in the DNA of the surrounding healthy tissue. This damage causes some of the cytosines to become 5ClC.

In addition, the researchers hypothesize that the hypochlorous acid also damages cytosines in the nucleotide pool, which cells use as the reservoir of nucleotides that will become part of the DNA of replicating cells, Essigmann says. "So 5ClC forms first in genomic DNA, and secondly it can form in the nucleotide pool, meaning the nucleotides in the pool are mutagenic in themselves," he explains. "This scenario would best explain the work of James Fox and his MIT colleagues on gastrointestinal cancer."

To confirm that 5ClC is mutagenic in human DNA, the researchers replicated the genome containing the lesion with a variety of different types of polymerase, the enzyme that assembles DNA, including human polymerases. "In all cases we found that 5ClC is mutagenic, and causes the same kind of mutations seen within cells," Fedeles says. "That gave us confidence that this phenomenon would in fact happen in human cells containing high levels of 5ClC."

What's more, the C-to-T mutation characteristic of 5ClC is extremely common, and is present in more than 50 percent of mutagenic "signatures," or patterns of DNA mutations, associated with cancerous tumors. "We believe that in the context of inflammation-induced damage of DNA, many of these C-to-T mutations may be caused by 5ClC, possibly in correlation with other types of mutations as part of these mutational signatures," Fedeles says.

Yinsheng Wang, a principal investigator in the Department of Chemistry at the University of California at Riverside who was not involved in the research, says the paper provides a novel mechanistic link between chronic inflammation and cancer development. "With a combination of biochemical, genetic, and structural biology approaches, the researchers have found that 5-chlorocytosine is intrinsically miscoding during DNA replication and it could give rise to significant frequencies of C-to-T mutation, a type of mutation that is frequently observed in human cancers," Wang says.

Studies of tissue samples of patients suffering from inflammatory bowel disease have found significant levels of 5ClC, Fedeles adds. By comparing these levels with his team's findings on how mutagenic 5ClC is, the researchers predict that accumulation of the lesions would increase the mutation rate of a cell up to 30-fold, says Fedeles, who was honored with the prestigious Benjamin F. Trump award at the 2015 Aspen Cancer Conference for the research.

The researchers now plan to carry out further studies to confirm their prediction, Fedeles says.

Provided by: Massachusetts Institute of Technology

[back](#) / [top](#)

## **19. Ancient mammoth remains found in Switzerland** **PhysOrg.com -- 8/7/2015 Internet**

Ancient mammoth remains found in Switzerland  
August 7, 2015

Mammoth remains that could be around 20,000 years old have been discovered at a building site in central Switzerland, a local official said Friday.

"It's a very exciting discovery, because the last mammoth find (in the canton of Zug) was 50 years ago," said Renata Huber of the canton's heritage and archaeological department.

During the construction of an office building in the town of Rotkreuz late last month, a heavy digger emerged from the ground lifting what appeared to be a large tusk, Huber said.

Local government specialists were immediately called in, and several other bones were later discovered, but not enough to reconstruct a full mammoth, she added.

"It's not clear if this is all one animal," Huber said, noting that the find was not as significant as those previously unearthed in Zurich, which enabled specialists to recreate an entire carcass.

Experts will now try to date the remains, and specialists will stay at the construction site until they are satisfied that there are no further bones to be uncovered.

The discovery is unlikely to shed any new light on the type of prehistoric species that once lived on what is now Swiss land, but Huber said the significance of the find should not be understated.

"For an archaeologist, this is a once in a lifetime thing."

[back](#) / [top](#)

## **20. Japan Heads for Nuclear Unknown With Reactor Restart** **Bloomberg -- 8/6/2015 New York City, NY**

Japan Heads for Nuclear Unknown With Reactor Restart  
Stephen Stapczynski Yuriy Humbern August 6

Japan is about to do something that's never been done before: Restart a fleet of mothballed nuclear reactors.

The first reactor to meet new safety standards could come online as early as next week. Japan is reviving its nuclear industry after all its plants were shut for safety checks since the 2011 earthquake and tsunami that wrecked the Fukushima Dai-Ichi station north of Tokyo, causing radiation leaks that forced the evacuation of 160,000 people.

Mothballed reactors have been turned back on in other parts of the world, though not on this scale -- 25 of Japan's 43 reactors have applied for restart permits. One lesson learned elsewhere is that the process rarely goes smoothly. Of 14 reactors that resumed operations after being offline for at least four years, all had emergency shutdowns and technical failures, according to data from the International Atomic Energy Agency and regulators in the U.S. and Canada.

"If reactors have been offline for a long time, there can be issues with long-dormant equipment and with 'rusty' operators," Allison Macfarlane, a former chairman of the U.S. Nuclear Regulatory Commission, said by e-mail.

In Sweden, E.ON Sverige AB closed the No. 1 unit at its Oskarshamn plant in 1992 and restarted it in 1996. It had six emergency shutdowns in the following year and a refueling that should have taken 38 days lasted more than four months after cracks were found in equipment.  
Industry Renaissance

Japan's restarts are being closely watched as the Fukushima disaster snuffed out what was then called a global nuclear renaissance. Success in Japan might allow the industry to re-emphasize nuclear as carbon-free energy before international climate talks in Paris this year, where almost 200 nations will negotiate emission standards.

This week, the Obama administration outlined a limited role for U.S. nuclear plants in its carbon reduction rules, withdrawing some credit for existing nuclear units while giving credit to new reactors under construction.

The first Japanese reactor to restart is at Kyushu Electric Power Co.'s Sendai plant on the southern island of Kyushu. It could be back online as soon as Aug. 10, according to the company.

Japan's Nuclear Regulation Authority has run safety checks and ensured that Kyushu Electric performed the maintenance required for a restart, Tadashi Yamada, an agency spokesman, said by e-mail. The authority's rules require nuclear operators to prepare dozens of safety countermeasures, such as building a secondary control room and constructing larger tsunami walls.

The challenges facing the NRA are "absolutely unique worldwide," said John Large, chief executive at Large & Associates, a London-based engineering consultant to the nuclear industry. "You have had the whole nation's fleet of nuclear power plants closed down for four years."

Long-Dormant

As problems can arise with long-dormant reactors, the NRA "should be testing all the equipment as well as the operator beforehand in preparation," Macfarlane of the U.S. said by e-mail. Although the NRA "is a new agency, many of the staff there have long experience in nuclear issues," she said.

Kyushu Electric has performed regular checks since the reactor was shut to ensure it restarts and operates safely, said a company spokesman, who asked not to be identified because of company policy.

"If a car isn't used for a while, and you suddenly use it, then there is usually a problem. There is definitely this type of worry with Sendai," said Ken Nakajima, a professor at Kyoto University Research Reactor Institute. "Kyushu Electric is probably thinking about this as well and preparing for it."

Nuclear plant operators shouldn't feel obligated to meet restart deadlines at the expense of safety, said Dale Klein, another former head of the nuclear regulator in the U.S. and now an adviser to Tokyo Electric Power Co., the operator of the Fukushima plant.

"The operators need to demonstrate a safety culture of stopping the startup if they encounter unexpected or unsafe conditions," Klein said.

[back](#) / [top](#)

## **21. Fukushima Baby Milk Formula Declared Unfit by China HuntingtonNews.net -- 8/5/2015 Huntington WV**

Fukushima Baby Milk Formula Declared Unfit by China



August 5, 2015 John LaForge

Chinese authorities seized more than 881 pounds of baby milk formula that had been imported from Japan because it had been produced in areas known to be heavily contaminated with radioactive material emitted by three damaged nuclear reactors at the Fukushima-Daiichi complex. China's Xinhua news agency reported that quarantine officials said that no excessive radioactive material was found in the formula, but the baby food was sent back to Japan because China has had a ban on any imports from the areas around Fukushima.

The July seizure of the Japanese baby formula came just a month after Japan had asked the Chinese to ease restrictions on Japanese food imports. On June 19, Japan's Ministry of Agriculture, Forestry and Fisheries used a meeting in Beijing to request that the import bans – which still apply to 10 Japanese prefectures – be lifted. According to the South China Morning Post, the Japanese Agricultural Ministry had stressed “the safety of Japanese food.”

The Chinese may have scoffed at the lobbying effort since this is the second time Japanese infant milk formula has been recognized as dangerous by Chinese authorities. In December 2011, traces of cesium-137 was detected in Japanese baby formula. Shortly after, Tokyo-based Meiji Holding Company announced the recall of 400,000 cans of their baby formula as a precaution but said the levels of cesium detected were well below the government's allowable limits. At the time, in a dubious statement, Meiji officials said, “Babies could still drink the formula every day without any effect on their health.”

Contrary to the clearly uninformed Meiji corporate opinion, many doctors and scientists warn that even the slightest internal radioactive contamination can cause cancer. Dr. John Goffman, Dr. Rosalie Bertell, Dr. Alice Stewart, Dr. Ernest Sternglass, Dr. Jay Gould, Dr. Helen Caldicott, and others, have all promoted the precautionary principle regarding any inhalation or ingestion of radioactive materials.

Scientific evidence indicates that the exposure to radiation suffered by fetuses, infants and children is far more serious than if the same exposure is suffered by adults. Also, the damage done to girls and women by radiation – compared to boys and men – is known to be more severe. The World Health Organization's 2011 assessment of Fukushima notes that when children are exposed to radiation below the age of five, there is a 70 percent higher risk of cancer for girls than there is for boys.

Feeding radiation-tainted food to the most vulnerable is questionable at best and criminal at worst.

Mary Olson, a senior staff researcher with the Nuclear Information and Resource Service explains, “If the alpha-emitting particles are hitting tissue from inside the body, estimates indicate that internal alpha particle damage is anywhere from seven to 1000 times more damaging to cell structures than is X-ray [external] exposure. Another way of saying this is that when there is no distance from the source of the alpha or beta particle to its target, the doses to the target are very much higher.” When it comes to babies ingesting contaminated baby formula, no level is actually safe and this is known throughout scientific circles.

The principle radioactive poison that is being tested for in Japanese foods is cesium-137. Unfortunately, there are also other deadly poisons that have been spewed in lesser amounts by Fukushima disaster. These include americium-241, plutonium-236, uranium-238, thorium-232 and the extremely dangerous isotope, strontium-90. All of these contaminants may also be found in food from Japan, including in baby formula.

In July 2011, Tokyo officials discovered cesium-137 at levels 6.4 times the national limit in beef sold to restaurants and stores in at least five prefectures; in April 2011, radioactive iodine-131 was found in breast milk of mothers east of Tokyo; radioactive tea from Japan was seized in France in July 2011 when it was found with twice the permitted amount of cesium – not that even a trace can be called harmless. The tea had come from Shizuoka Prefecture, 300 miles south of Fukushima.

[back](#) / [top](#)

## **22. Plan to contact isolated tribe in Peru stokes controversy** **ScienceInsider -- 8/7/2015 AAAS, Washington, DC**

Plan to contact isolated tribe in Peru stokes controversy  
Andrew Lawler 7 August

In the wake of increasingly frequent sightings and two fatalities, the Peruvian government announced last month that it would attempt to help and potentially contact an isolated indigenous tribe that lives deep in the Amazon. But some fear the plan could further jeopardize the group, and on 3 August, the government backtracked on the implications of its announcement, insisting that it would not make the first move toward contact, though it will respond to communication initiated by the tribe.

The case highlights an ongoing international debate about how to best help emerging tribes, who lack immunity to common diseases and are among the most vulnerable people on the planet (Science, 5 June, p. 1072). “We are extremely worried about this situation and its possible disastrous consequences,” says Francisco Estremadoyro, director of Lima-based ProPurús, a nonprofit that seeks to protect the peoples and the environment in eastern Peru.

Anthropologists and officials are currently most concerned about 30 members of the Mashco Piro tribe in Manú National Park, a remote forested area bordered by the Madre de Dios River. Anthropologists report more than 100 sightings since 2014 of tribe members on the banks of the river. Mashco Piro have raided a nearby village for machetes and goods and killed two villagers, the most recent in May. In the past months they have also repeatedly gestured at, called to, and received goods from local indigenous people across a river; one such contact was captured on video. Tour operators sell tickets for “human safaris” along the river, and missionaries are reported to have given food and clothing to the group in the past year. “You can see a group on the beaches for hours, waiting for the boats to pass call, and request certain products,” writes Luis Felipe Torres, a Peruvian ministry anthropologist who has spent time in the area, in an

essay published 22 July. “They are especially interested in bananas, cassava, sugarcane, machetes, and pots.” Torres concludes that “they are deliberately seeking to interact with people transiting the river.”

Given such credible reports, “there are no reasonable grounds to interpret this behavior as a sign that this group wants to remain unconnected to the rest of society,” said Patricia Palacios Balbuena, vice minister in Lima’s Ministry of Culture that oversees tribal affairs, in a 21 July statement. Minister of Culture Diana Alvarez-Calderon subsequently approved a 6-month plan to increase patrols, discourage raids, and make contact “only if they make an appearance and show a willingness for a conversation.” But a ministry official also told reporters that the government planned “controlled contact,” raising concerns about the plan.

When and how to make contact with isolated tribes is a hotly contested issue among anthropologists and groups that aim to protect these vulnerable people. When anthropologists Kim Hill of Arizona State University, Phoenix, and Robert Walker of the University of Missouri, Columbia, proposed in *Science* (5 June, p. 1061) that “a well-designed contact can be quite safe,” the nonprofit group Survival International in London accused them of promulgating a “dangerous and misleading” idea. Tribes like the Mashco Piro have had limited contact with strangers and foreign pathogens for at least a century, and so are extremely susceptible to illness and exploitation; many newly contacted tribes have been all but wiped out by the flu or other common diseases.

Peruvian policy is to avoid all contact with such tribes and protect them from intruders on their reserves. But in practice, this policy is difficult to carry out. In this case, given the contact that is already occurring, infection is likely, officials say. Hill and Walker wrote in their editorial that leaving groups “exposed to dangerous and uncontrolled interactions with the outside world, is a violation of governmental responsibility.” Balbuena calls for “immediate action by the competent authorities to safeguard their health and prevent negative consequences of uncontrolled contact.”

But Survival International and other groups like ProPurús protested Balbuena’s statement and the vague eight-page plan, fearing that it could set a dangerous precedent that encourages contact. Rebecca Spooner, campaigns officer at Survival International, insists that the desires of the tribe remain unclear. Although tribe members may have sought goods, “shooting arrows at people is a clear indication that they do not want contact.” Therefore, official contact without a request is illegal, she says. Instead, she urges Peru to prevent outsiders from entering the reserves and educate local people about the dangers of interacting with isolated people.

Hill counters that “leaving the Mashco Piro alone will ultimately bring a terrible disaster to them.” He calls the Peruvian government’s intention to act “good news.” But he warns that it will require a commitment extending far longer than 6 months. Tribe members “cannot be left alone, even for a few weeks, during the first 2 to 3 years, or the whole population could go down,” he says.

All agree that the situation is now at a crisis point. “They have reacted far, far too late,” says Spooner of the Peruvian government. She blames the government for failing to keep loggers,

missionaries, and tourists out of the Mashco Piro's land, which she says is at the root of their frequent appearances on the river. Local settled groups that speak a similar dialect report that the tribe faces food shortages, according to Peruvian news reports. And the government report suggests that outsiders are poaching animals like peccary and tapir—staple foods for tribes.

The ministry's statement on 3 August promises to patrol the river and train local people, and Estremadoyro says officials assured him last week that they do not intend to force contact. Like Hill, he agrees something must be done. But he worries that the government lacks the long-term political and financial support to provide food, shelter, medical help, and other services.

Balbuena says that assisting the Mashco Piro "is a huge challenge that cannot be postponed." Anthropologists and nongovernmental organizations will be watching closely to see if Peru can help rather than harm members of one of the world's last isolated tribes.

[back](#) / [top](#)

### **23. EPA foes turned asthma study into , August 6, 2015 E&E Publishing, LLC -- 8/6/2015 Washington, D.C.**

EPA foes turned asthma study into weapon for ozone fight  
Amanda Peterka, E&E reporter, August 6, 2015

When a Johns Hopkins University researcher published a study showing race and income as risk factors for asthma, she started getting phone calls from industry groups opposing U.S. EPA's bid to tighten the national ozone standard.

Dr. Corinne Keet said her newfound fans wanted to use her work to show EPA's ozone proposal wouldn't yield public health benefits.

A pediatrician who specializes in allergies, Keet is not an air pollution expert. Her study published in January in the Journal of Allergy and Clinical Immunology didn't even mention ozone.

Corinne Keet

Corinne Keet, assistant professor of pediatrics at Johns Hopkins University. Photo courtesy of Johns Hopkins University.

"It's been an interesting education for me in terms of how research is interpreted," Keet said in an interview. "I was called by consultants for industry to discuss the results in terms of looking for ways of suggesting that either genetic factors or poverty rather than pollution are important things for asthma."

EPA has proposed tightening the national air quality standard for ozone -- a component of smog -- to between 65 and 70 parts per billion from 75 ppb set by the George W. Bush administration in

2008. Based on a scientific review, EPA said the 75 ppb limit was no longer adequate to protect public health as the Clean Air Act requires.

Industry groups and congressional Republicans oppose the EPA proposal, arguing that ozone isn't a significant factor in whether people develop asthma and citing Keet's study. The bottom line in aggressive media ads and messaging on Capitol Hill: Asthma rates are rising even while air pollution levels are falling.

Their campaign targets the Obama administration's assertion that a tighter ozone standard will help reduce hospital visits and other health care costs tied to asthma.

"When they start saying 'asthma,' of course that's a very compelling story. And the administration likes to tout that," said Howard Feldman, director of regulatory and scientific affairs at the American Petroleum Institute. "That's not necessarily borne out by all the information, the science out there. The trends are not there."

Public health advocates, on the other hand, maintain that foes of the tougher pollution standard conflate two different issues: asthma prevalence -- whether a person develops asthma -- and asthma exacerbation, whether someone who has asthma experiences an attack.

Environmental and health groups want a tougher ozone standard than what the administration proposed because it would improve life for people who have asthma and other respiratory diseases.

The Sierra Club, for example, in April launched a campaign meant to highlight "the challenges of being the working parent of a child with asthma" to coincide with Take Your Child to Work Day.

"We don't know what causes asthma, but we do know what triggers asthma attacks -- indoor pollutants, allergies, and we know that ozone is one of those triggers," said Paul Billings, senior vice president for advocacy at the American Lung Association. "It makes people vulnerable to some of those other triggers as well. Ozone's a powerful respiratory irritant, and people with asthma have sensitive lungs."

'Huge mess of things'

The Centers for Disease Control and Prevention estimates that 18.9 million American adults and 7.1 million children have asthma, according to a 2011 national survey.

Between 2001 and 2011, the CDC says, the number of Americans with asthma increased 28 percent.

Despite its prevalence, asthma remains a difficult health problem for researchers. What's commonly called asthma can involve a number of symptoms. And there's no single cause; whether a person develops asthma is likely the result of a confluence of factors.

But there's plenty of research tying exposure to ozone to worsening symptoms in asthma

sufferers. A study published in March in the journal *Environmental Health* found that ambient ozone levels were associated with childhood asthma emergency room visits but that the relationships varied among boys and girls, as well as age groups.

David Peden, director of the University of North Carolina's Center for Environmental Medicine, Asthma and Lung Biology, said studies have so far shown no "absolute cutoff" for what level of ozone pollution harms asthmatics given that some people may have exacerbations at lower concentrations. But, he said, he had "very little doubt" that levels of ozone between 60 and 75 ppb could cause asthma attacks.

Peden has authored several studies on how air pollution affects public health, many of which have been funded by the National Institute of Environmental Health Sciences and EPA.

"Increased levels of ozone can sometimes sneak up on you," Peden said in an interview. "People know they're having an asthma worsening and may not appreciate that they're getting exposed to something that might be causing a very subtle irritation of the airway."

Public health groups have highlighted those connections in their campaigns calling for an ozone standard of no higher than 60 ppb. The American Lung Association, for example, has framed its campaign around kids wanting to play outside and their inability to do so when air pollution levels are high, particularly when children have asthma.

"We can do a lot to help patients manage their asthma. We can give them medication, they can use their devices correctly, but we can't control the ambient air," the association's Billings said. "Only through the power of collective action, through government, can we force the polluters to clean up and reduce that burden."

EPA says reducing ozone pollution to between 65 and 70 ppb would prevent between 750 and 4,300 premature deaths, between 1,400 and 4,300 asthma-related emergency room visits, and between 320,000 and 960,000 asthma attacks in children yearly by 2025. Taking into account reduced asthma attacks, EPA estimated that the benefits of the ozone rule would outweigh costs 3-1.

Industry, meanwhile, has focused its messaging on where the science is less certain: ozone's role in causing people to get asthma.

There's emerging evidence that air pollution has played a role in the upward trend in asthma cases over the last decade but it's likely one of a "huge mess of things," said Mary Rice, an instructor of medicine at Harvard University's Beth Israel Deaconess Medical Center.

"More doctors are aware of asthma, pollen seasons are longer, obesity, nutrition, diet, air pollution could be in the mix," Rice said. "Most studies suggest that [air pollution] contributes to the risk of asthma, but it's only one risk factor among many, many things that can contribute."

EPA acknowledges the recent research on air pollution triggers for asthma in the scientific documents underlying the rule, but the agency confined its benefits analysis to asthma attacks.

Industry, however, has accused the Obama administration and public health groups of overselling the ties between ozone pollution and asthma prevalence.

"Air quality has been increasing, pollution has been decreasing, things are getting better and asthma's getting worse," said Daniel Simmons, vice president for policy at the Institute for Energy Research (IER), a conservative think tank that's partly funded by the Koch brothers. "You have this disconnect."

The Texas Commission on Environmental Quality, one of EPA's biggest critics, has long questioned the agency's conclusions about asthma.

In its newsletter last October, the commission said it concluded that human volunteers exposed to ozone showed similar lung effects in asthmatics and in non-asthmatics, and that children were no more sensitive to ozone than young adults. The state pointed to increasing asthma admission rates in Texas as its proof.

"If asthma were actually tied to ozone, you would expect to see the instances of asthma decreasing, not increasing," the newsletter said. "In fact, data from Texas hospitals show that asthma admissions are actually highest in the winter, when ozone levels are the lowest." 'Erroneous conclusion'

The study by Johns Hopkins' Keets examined 23,065 children and found that race and income were risk factors for asthma, regardless of whether a child lived in an urban or rural area.

"Although the prevalence of asthma is high in some U.S. inner cities, it is equally high in some poor nonurban areas," the study found. "Taking the United States as a whole, living in an urban neighborhood is not associated with increased asthma prevalence."

The study was supported by EPA, the National Institute of Environmental Health Sciences, the National Institute of Allergy and Infectious Diseases and the National Cancer Institute.

Shortly after the study's publication in January, at least two opponents of EPA's proposal to tighten the national ozone standard touted its results as disproving EPA's claims about asthma.

In blog posts, IER and the Heartland Institute said the study showed that asthma prevalence was not higher in urban areas, where air pollution was typically more of a problem.

They argued that EPA's proposal, by imposing high compliance costs, could actually increase asthma prevalence by making people poorer.

"In light of this new evidence, EPA should rescind its proposed ozone rule," IER wrote. "This rule could exacerbate the public health problem it is trying to mitigate and impose enormous economic burdens on American families. Moreover, ozone levels are already declining without further regulation, obviating the need for more federal mandates."

Keet said such arguments are a "distortion" of her research team's findings.

In March, she wrote to EPA Administrator Gina McCarthy in an attempt to set the record straight. In her letter, she noted that the study did not examine air pollution and that living in an urban area should not be taken as a surrogate for high exposures to pollution.

"This study's finding has been misinterpreted by some who believe that it suggests that air pollution in general, and ozone in particular, is not important for asthma," she wrote. "This is an erroneous conclusion."

Still, the study was the subject of an intense exchange between in June between Rep. David McKinley (R-W.Va.) and Johns Hopkins University air pollution researcher Gregory Diette at a hearing of the House Energy and Commerce Committee.

Diette had been testifying that the science dictated that EPA set a lower ozone limit. McKinley -- whose son has asthma -- asked Diette to account for the Keet study.

"This report, Dr. Diette, from your Johns Hopkins institution, they have come out with a report themselves just recently and said they can't find a connection," McKinley said. "They say there is no statistical difference between the rates of asthma attacks in high-pollution areas than in non-pollution areas."

Diette shot back: "Just so it is clear, the conclusion of the study is not what you said it was."

As recently as last month, IER cited the study in a blog post that attempted to discredit the Obama administration's health claims used to justify the Clean Power Plan.

Simmons acknowledged that the authors of the study have disputed the group's interpretation of its results but said the findings still raised a "very important question" about the links between ozone and asthma.

"It looked at asthma in inner cities and asthma in the suburbs, and there was not a statistically meaningful difference," he said. "The inference that we drew from that is, don't you have more air pollution in inner cities than you do in the suburbs?"

Several researchers also suggested that industry is focusing on an area where the science is still unsettled -- what causes a person to have asthma -- and not on the part of the question where the science is more certain -- whether ozone increases the likelihood of attacks in people who already have asthma.

"The discussion of asthma going up is confusing the issue of the prevalence of asthma, meaning how many people develop the disease versus the disease course, so how sick the people who have asthma get," said Harvard's Rice, who was grilled about the asthma-ozone link by Rep. Jim Bridenstine (R-Okla.) at a recent hearing.

"At this point," Rice said, "there's very strong evidence to show that exposure to higher levels of



ozone increases the risk of asthma attacks. I would say dozens, perhaps even hundreds of studies show that when ozone goes up, people who have asthma get sicker."

Some critics of EPA's scientific analysis argue, though, that there's also more uncertainty in the science linking asthma exacerbation and ozone than EPA is portraying.

"I don't think EPA fully takes into account uncertainties and other explanations for asthma exacerbations," said Julie Goodman, a principal at the consulting firm Gradient who has done ozone research for Texas and API. "Several things trigger asthma attacks, and it's very difficult to tease out what causes them in an epidemiology study."

Goodman is working on a paper that she said will prove the weight of evidence suggests the tighter standard won't have an impact on the number of asthma attacks.

"At certain exposure levels, ozone can exacerbate asthma. The question isn't whether it can," Goodman said. "The question is at what exposure level this happens and will lowering the standard have any additional health benefit. ... We conclude that the current standard is sufficient to protect public health."

'Something that resonates with anyone with a heart'

One area of agreement: Asthma is a powerful way to sell a new ozone standard, given how many Americans are affected by the disease.

Although ozone pollution has also been linked to premature death, Rice said focusing on asthma is a more real way to portray the dangers of ozone to humans.

"I think that as the risk of death goes up, it's harder for people to get their heads around than an asthma attack," Rice said.

EPA has also used asthma to attempt to coalesce support for its Clean Power Plan to reduce carbon dioxide emissions from existing power plants.

"We can all think of children with asthma and just how hopeless we feel. You see a child struggling and you want to help the child," IER's Simmons said. "So asthma is something that resonates with anyone with a heart."

[back](#) / [top](#)

## **24. Ailing Vets Sue, Say Toxic Burn Pits Cost Them Their Health Santa Fe New Mexican, The -- 7/27/2015 NM**

Ailing Vets Sue, Say Toxic Burn Pits Cost Them Their Health  
The Santa Fe New Mexican Jul 27, Phaedra Haywood

Hundreds of soldiers who've come home from wars in Iraq and Afghanistan now are battling the very companies that helped operate their base camps, claiming constant exposure to toxins from open-air burn pits has wrecked their health.

David Montoya, 44, of Farmington is one of newest litigants suing the companies. Cancer that started in his colon has spread to his lungs, and his doctor told him in February that he had about two years to live. Montoya says the cause of his cancer was contaminated water supplied by the military contractors, and from breathing in smoke from the burn pits.

Montoya filed his lawsuit last week in state District Court in Santa Fe against Halliburton Co., KBR Inc. and Kellogg, Brown & Root Services LLC. In doing so, he joined almost 250 other former and active military personnel who are suing the companies, which provided water treatment and waste disposal services in Iraq and Afghanistan. Two other soldiers from New Mexico, both in poor health, jointly filed a suit against the companies six years ago. At one point, a federal judge in Maryland rejected suits against the military contractors, but an appeals court reversed that decision. With the case alive, soldiers who are dying say they have a chance to shed light on wartime actions that placed profits over people.

Burn pits were part of the American war effort as a means of keeping bases functional. Afire constantly, they burned plastics, metals, chemicals and every form of waste, say soldiers who served at the outposts. Contaminated jet fuel often ignited the burn pits.

The companies being sued say their work was critical to America's war effort, not a detriment to American soldiers. One company summed up its position in an email last week: "KBR provided a critical service to the Army under dangerous conditions, and to the exacting standards of the Army's guidelines and contract for waste disposal. KBR personnel performed admirably under extreme conditions to safely and effectively dispose of tons of waste material. We will vigorously defend any allegations to the contrary."

The company has argued in court that it can't be held liable for wartime decisions made by the U.S. military, and that it was essentially following orders given by the government when it created the burn pits.

Army National Guard 1st Sgt. Montoya says the pits were an obvious health hazard.

On battlefields in Iraq between 2003 and 2005, and again in 2007 and 2008, he evacuated wounded soldiers who then were transported to hospitals by aircraft. His life in a combat zone also meant living near one of the burn pits. He says junk and waste of every type landed in the pits. They included trucks, Styrofoam, ammunition, paints, tires, solvents, asbestos insulation, pesticides, animal carcasses and even human remains.

Flames from the pits shot hundreds of feet into the sky. Heavy smoke was the norm, Montoya says in his lawsuit.

"The flames were often colored blue or green from the hazardous chemicals that were put on the burn pit. The smoke from the pit also turned a thick black or white depending on what was being

burned. The smell from the pit was often of plastic or chemicals burning and was extremely noxious. The smoke from the enormous burn pit close to Camp Cropper and Camp Victory was often so thick it filled the nearby living quarters with smoke and haze."

At times, wild dogs raided the burn pit, he says in his complaint. The dogs "could be seen roaming the base with body parts in their mouths, to the great distress of the U.S. Forces."

Montoya says the smoke from the burn pit was pulled into the barracks through the air-conditioning system. He and his fellow soldiers woke each morning spitting black and gray mucus. "Sometimes it was so bad, we'd sleep without the air conditioner and suffer through the heat so that it wouldn't get into our living quarters," he says. Montoya alleges in his complaint that KBR knew the hazards associated with the burn pits and also "knowingly exposed troops and civilians to contaminated water from the Euphrates and Tigris Rivers."

Similar lawsuits, originating in 42 states -- including a complaint filed in 2009 by soldiers Jesse Joseph Philip Baca of Albuquerque and Daniel Tijerina of Santa Fe -- have been consolidated in a U.S. District Court in Maryland.

Susan L. Burke, a Baltimore attorney who is representing service members in the multidistrict suit against the companies, said "thousands" of victims, including more in New Mexico, have contacted her because they want to be part of the case. A judge will decide next month how those individual complaints will be included. Burke said Montoya's lawsuit will likely become part of the larger suit, too.

According to plaintiffs' claims in the consolidated case, the contractors created "literally hundreds" of burn pits at military bases throughout Iraq and Afghanistan. They say the health repercussions from the burn pits are like the effects of Agent Orange -- an herbicide used during the Vietnam War -- in that thousands of former soldiers who survived combat later became sick or died from something to which they were exposed by their own government.

In 2013, a bill by U.S. Sen. Tom Udall, D-N.M., created a federal burn pit registry to track the symptoms of soldiers in Iraq and Afghanistan. The registry is open to any veteran or active-duty service member who served in the Southwest Asia theater after Aug. 2, 1990, or in Afghanistan or Djibouti, Africa, after Sept. 1, 2001. This could cover 3.5 million people, according to a U.S. Department of Veterans Affairs report published in June.

Udall said via email last week that he wrote the legislation after learning about the issue from Master Sgt. Baca of Albuquerque.

Doctors diagnosed Baca with skin cancer and a host of other health problems after two tours in Iraq. He was stationed at Camp Anaconda, home to one of the largest pits. In all, Baca served in the military for more than 35 years.

Baca and his wife, Maria, were among nine families claiming negative effects from burn pits who traveled to Washington, D.C., to support Udall's bill. As of December, more than 28,000 service members had listed their health problems on the registry.

The main defendants in the litigation -- KBR and Kellogg, Brown & Root -- were, until 2007, subsidiaries of Halliburton. According to Montoya's suit, the companies received \$8.2 billion in government contracts to support military operations in the Middle East in 2006 alone. That amount represented more than 45 percent of all their revenue for that year, the suit says.

The companies' argument that they were merely following orders given by the government when they created the burn pits was accepted by a judge in Maryland who dismissed suits against the companies in February 2013.

"This case is about war, in fact two wars," U.S. District Judge Roger W. Titus wrote in his opinion. "It has sometimes been said that 'war is hell.' ... Especially during times of war, the military frequently calls upon civilians and civilian contractors to aid in the fulfillment of its missions under often hellacious combat conditions."

Titus found that laws that afford immunity to public employees also extend to others in times of war. He wrote that exposing wartime contractors to the threat of too much liability could make it impossible for the military to find companies willing to do necessary work. He concluded that controlling -- and correcting, if need be -- the actions of the contractors was a function of the executive branch of government.

But the 4th Circuit Court of Appeals disagreed. It found that there were issues of jurisdiction and governmental immunity that still needed to be explored through discovery before the case could be decided. The appeals court reversed Titus' decision and sent the case back to him in March 2014.

KBR asked the U.S. Supreme Court to review the appellate court decision, but the request was turned down in January.

Titus has since ordered the parties to begin preparing their arguments regarding discovery of evidence.

"Finally, the many victims of KBR's negligence will have their day in court," Burke said last week, noting that the first burn pit lawsuit was filed in 2008. "It's been a long process, but hopefully we'll move forward quickly from here to a trial before jury."

Meanwhile, Montoya, Baca and Tijerina are disillusioned.

"It definitely changes your outlooks and views on a lot of things," said Montoya, who said he joined the National Guard before he was even out of high school because he was a patriot and wanted to serve his country, like his father and uncles had. "You just kind of feel betrayed by corporate America, you know? Regardless of your beliefs on the war, when it comes down to corporate America profiting so much and the amount of money they make, they can take the time and right steps to ensure the safety of the service member."

Montoya told his children -- ages 20, 17 and 15 -- about his terminal diagnosis earlier this year.

"I've gone through several different opinions and emotions," he said. "Of course you blame the government. Then you come back to the ground to say, 'Well, you know what, this was my choice. No one forced me to do this.' "

As for his children, "They saw me go from being such a big, strong soldier to just a crumpled down man dying of cancer."

Tijerina, 61, of Santa Fe, says he feels "kind of let down because the military and the VA really haven't been there to acknowledge that this has happened to thousands of troops."

A former National Guard chief warrant officer, he served 33 years in the military before being medically discharged in 2008. Tijerina said he had a recurring staph infection that caused cysts in his underarms and buttocks that had to be lanced, drained of puss and packed with gauze. The infection has "quieted down," but his respiratory problems have gotten worse, he said. He now uses oxygen at home to breathe. He never smoked.

Tijerina said he believes KBR executives knew the pits were harmful but didn't care. "They just thought, 'Fine. If we get fined, we'll pay the penalty and move on,' " he said.

Maria Baca and Tijerina have both created Facebook pages dedicated to the burn pit issue -- Burn Pit Families and Burn Pit Voices, respectively -- where people from around the country commiserate and share information.

"My long-term goal is to spread the news far and wide to help people make the connection between their health problems and the burn pits," Tijerina said of his page, Burn Pit Voices.

"I advise them to just stay on it. A lot of people would like to see it just go away, like with Agent Orange."

[back](#) / [top](#)

## **25. Halliburton subsidiary KBR suing veterans for legal bills of case KBR lost** **Daily Kos -- 7/27/2015 Internet**

Halliburton subsidiary KBR suing veterans for legal bills of case KBR lost  
Jul 27 Daily Kos Walter Einkenkel

KBR, formerly known as Kellogg, Brown & Root, formerly a subsidiary of Halliburton, has decided to sue 12 National Guard veterans for \$850,000 in lost legal fees.

After developing health problems consistent with hexavalent chromium exposure, the veterans sued KBR for negligence in Federal Court in Portland. After a month long trial, the jury awarded the veterans \$85 Million in 2012. KBR appealed, and sought \$30 Million in legal fees and damages from the veterans for initiating the lawsuit.

The soldiers, residents of Oregon and under orders from the Department of Defense, placed on loan to a private entity contracted by the DoD, sued in their home state in federal court, not state court. They argued that a chemical used at the Qarmat Ali treatment facility had, to the knowledge of KBR, contaminated the site. Remaining at the site without being informed of the presence of the cancer agent by DoD or KBR constituted negligence. The Oregon jury agreed.

The case was the result of events from 2003 when KBR was officially a subsidiary of Halliburton. However, it wasn't until earlier this year when the Supreme Court said it was okay for veterans to sue the Houston-based company. So how come KBR can sue these veterans for legal fees, you might ask?

Oregon veterans and victims of toxic burn pit exposure linked to contractor Halliburton were devastated when the 9th Circuit overturned a landmark \$85 million verdict. Soldiers contend they were knowingly exposed, but the allegations have obviously been denied.

[...]

Halliburton's subsidiary Kellogg, Brown and Root (KBR) allegedly exposed soldiers to toxic burn pit smoke at Qarmat Ali. The 9th Circuit held that Oregon veterans were unable to hold KBR accountable in their home state. Instead, counsel for the veterans now plans to sue KBR in Houston.

So, it was overturned but not because KBR isn't still entirely responsible for making these soldiers ill because of their greed and/or incompetence. If you read the site you aren't surprised that anything with even the lightest hint of Halliburton stench on it is rotten to the core. Unfortunately, this tactic of trying to crush people financially with mountains of litigation can frequently work. Oregon's representative delegation sans the one Republican have sent a letter to Defense Secretary Ashton Carter urging him to take over the litigation and settle with the 12 Oregon veterans. The letter outlines the biggest problem in all of this: the KBR contract with the Department of Defense immunizes the private contractor from any litigation.

An excerpt from the Oregon delegation:

Money is going to be spent on the part of this contractor who has already made several dozens of billions of dollars on the war in Iraq. They already have enough money to tie up sick veterans in litigation for years but they won't have to worry about using any of their money to do it. Just all of our money. Say what you will about the Obama administration, they have tried over the past few years to promote fixed contracts and companies like KBR have been bristling at the thought of having to actually run a private contracting business without having the deck stacked in their favor.

Fixed-price contracts and task orders are generally viewed as less risky and less expensive than cost-reimbursable work when the work to be done is well understood and limited in scope. The Obama administration made it a reform priority in 2009 to use more firm, fixed-price contracts and fewer cost-reimbursable contracts.

Army contracting officer Robert Egan gave contractor KBR Inc. a rare ultimatum: Provide a firm, fixed price on remaining work to close out the largest government services contract in U.S. history. Or else, he added, he was finished talking.

“Until I see that FFP deliverable, I cannot enter further communication exchanges with your contracts team,” Egan told the company in a Feb. 26 email.

[...]

KBR reacted swiftly to Egan’s email demanding a fixed-price closeout: “KBR is unwilling to accept such a proposal,” KBR senior contracts manager Mary Wade said in a letter.

“LOGCAP III close-out activity does not lend itself to a firm fixed-price arrangement,” Wade wrote.

“Currently, there is no way to accurately define the scope or duration of work. There is no detailed statement of work because no one knows what is going to be done, when it will be done and how long long it will take to complete.

“We see no need to change it,” she concluded.

[back](#) / [top](#)

---